

# Documentation

## HiPath 4000 SIU and DTR Tones

Service Manual

A31003-H3010-S104-2-7620

Communication for the open minded

Siemens Enterprise Communications  
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## Communication for the open minded

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# **1 Introduction**

## **1.1 Status**

This specification is intended to supplement the HW or LW specification for SIU Type 1. It supplements the latter in respect of the new and additional requirements of Hicom 300 variant V3.1 or higher. The specification likewise applies to new SPX-based SIU or SIUCO implementations such as the SCC for Hicom 80 CM.

In the event of further country adaptations or other requirements, the specification will be amended accordingly.

## **1.2 General**

At startup, the SIU's tone generators are supplied with the relevant parameters for timeslot, frequencies, level, and cadencing. These parameters are selected on a country-specific basis via the country code LKZ = selection of the appropriate file for loading the parameters. The country code is set by AMO.

The following tables contain all the tones generated by the SIU. Tones generated by software switching, such as non-circulating tone sequences, are not listed in these tables (e.g.: FRG negat. acknowledgment tone = 3.5 s busy tone).

At startup, the SIU's dial tone receivers are supplied with the relevant parameters for filter selection, evaluation mode. These parameters are selected on a country-specific basis via the country code LKZ = selection of the appropriate file for loading the parameters. The country code is set by AMO.

The language of the brief announcements is selected using the language code SKZ.

The following tables contain data which is loaded into the SIU.

## **1.3 Country codes**

The AMO-ZAND commands of the tone and receiver initializations listed below apply to Hicom 300 V3.3+ and must be applied to the subsequent versions as appropriate.

### 1.3.1 Tone and Receiver Initializations

Country	LAW	AMO ZAND											
		TONES		SIU Tones								GAIN LOAD	
		TONTBL		Tones								DMPF LOAD	
		CP		SIU	SIU C	DTR				SIU ANN	CONF C	GAIN C D	
		CPTON		SIU TON	SIU	HZE				SIU SPK Z	CONF-HW	DMPF LKZ	
		RT O TO N1	RT O TO N2	LK Z	LKZ	LK Z	Mod e (4,5)	Typ e (4,5 )	Mod e (6,7)	Typ e (6,7 )		LKZ	
ALB													
ALG	A	2	13	T	T	T	1	1	9	1	3	T	0
ARG	A	2	1	0	0	0	1	1	1	2	4	0	0
AUS	A	2	2	4*	4*	4*	8	1	8	1	2	4	4
BAH	A	2	2	7	7	7	7	1	7	1	2	7	7
BEL	A	2	13	3*	3*	3*	1	1	3	3	1,2,3,6,B	3	3
BEN													
BGD	A	2	1	0	0	0	1	1	1	2	2	0	0
BLZ													
BOL	A	2	2	Q	Q	Q	B	1	B	1	4	Q	Q
BRA	A	2	2	Q*	Q*	Q*	B	1	B	1	9	Q	Q
BRD	A	2	1	0*	0*	0*	1	1	1	2	1	0	0
BUL	A	2	1	0	0	0	1	1	1	2	1	0	0
CHL	A	2	3	3	3	9	1	1	7	1	4	3	0
CHN	A	1	1	C*	C*	C*	4	1	4	1	2,C	C	C
COR	A	2	1	0	0	1	4	1	4	2	4	0	0
CRE	A	1	--	J*	J*	J*	4	1	4	2	1,G	J	J
DAN	A	2	2	H*	H*	0	1	1	1	2	2,7	H	H

Country	LAW	AMO ZAND											
		TONES			SIU Tones							GAIN LOAD	
		TONTBL			Tones							DMPF LOAD	
		CP		SIU	SIU C	DTR					SIU ANN	CONF C	GAIN C D
		CPTON		SIU TON	SIU	HZE					SIU SPK Z	CONF-HW	DMPF LKZ
		RT O TON1	RT O TON2	LK Z	LKZ	LK Z	Mod e (4,5)	Typ e (4,5 )	Mod e (6,7)	Typ e (6,7 )		LKZ	
ECU	A	2	13	3	3	3	1	1	3	3	4	3	0
EGY	A	2	2	7	7	7	7	1	7	1	2	0	0
ELF	A	2	13	A	A	A	7	1	A	1	3	A	0
EST	A	2	1	8	8	8	6	1	6	2	2,T	8	8
ETH													
FIN	A	2	1	8*	8*	8*	6	1	6	2	2,8	8	8
FRA	A	2	13	A*	A*	A*	7	1	A	1	3	A	A
GBR	A	2	2	7*	7*	7*	7	1	7	1	2	7	7
GEO (CIS)	A	1	1	13	13	13	C	1	C	1	2,H	1	13
GHA	A	1	1	B	B	C	4	1	4	1	2	B	0
GRI	A	2	1	R*	R*	J	4	1	4	2	N	0	R
GUA	A	2	1	R	R	1	4	1	4	2	4	0	0
CIS	A	2	5	13*	13*	13*	4	1	4	2	2,H	1	13
HGK	A	10	10	S*	S*	S*	7	1	7	1	2,C	S	S
HON	A	2	2	3	3	C	4	1	4	1	4	3	0
IDS	A	2	2	N*	N*	C	4	1	4	1	2,M	N	N
IND	A	8	8	7	7	11*	5	1	5	1	2	7	0
IRL	A	2	1	0	0	0	1	1	1	2	2	0	0
IRN	A	2	1	0	0	0	1	1	1	2	2	0	0
IRQ													
ISL													

## Introduction

### Country codes

Country	LAW	AMO ZAND											
		TONES			SIU Tones							GAIN LOAD	
		TONTBL			Tones							DMPF LOAD	
		CP		SIU	SIU C	DTR				SIU ANN	CONF C	GAINC D	
		CPTON		SIU TO N	SIU	HZE				SIU SPK Z	CONF-HW	DMPF LKZ	
		RT O TO N1	RT O TO N2	LK Z	LKZ	LK Z	Mod e (4,5)	Typ e (4,5 )	Mod e (6,7)	Typ e (6,7 )		LKZ	
ISR	A	2	2	15*	15*	15*	5	1	5	1	2	15	7
ITL	A	3	5	D*	D*	D*	1	1	6	1	A	D	D
JEM	A	2	2	7	7	7	7	1	7	1	2	7	7
JOR	A	2	2	7	7	7	7	1	7	1	2	7	7
JPN	A	2	---	18*	18*	18*	5	1	5	1	D	18	0
KAM	A	1	5	14*	14*	14*	4	1	4	1	3	14	0
KAT	A	2	2	7	7	7	7	1	7	1	2	7	7
KEN	A	2	2	4	4	C	4	1	4	1	2	4	0
KOL	A	2	1	9	9	9	1	1	7	1	4	0	0
KOR	A	2	2	16*	16*	16*	2	1	2	1	2	16	16
KRO	A	2	1	R	R	J	4	1	4	2	R	B	0
KUW	A	2	13	3	3	3	1	1	3	3	2	3	0
LAN													
LBY	A	2	2	0	0	C	4	1	4	1	2	0	0
LET	A	2	1	8	8	8	6	1	6	1	2	8	13
LIB	A	2	13	3	3	3	1	1	3	3	2	3	0
LIT	A	2	1	8	8	8	6	1	6	1	2	8	13
LUX	A	2	1	0	0	0	1	1	1	2	3	(0)	L
MAL	A	2	1	E*	E*	C	4	1	4	1	2,M	E	E
MAR	A	2	13	T*	T*	T*	1	1	9	1	3	T	T
MAZ	A	2	1	R	R	J	4	1	4	2	R	B	0
MEX	A	1	1	G*	G*	9	1	1	7	1	4	G	J



Country	LAW	AMO ZAND											
		TONES			SIU Tones							GAIN LOAD	
		TONTBL			Tones							DMPF LOAD	
		CP		SIU	SIU C	DTR				SIU ANN	CONF C	GAIN C D	
		CPTON		SIU TON	SIU	HZE				SIU SPK Z	CONF-HW	DMPF LKZ	
		RT O TO N1	RT O TO N2	LK Z	LKZ	LK Z	Mod e (4,5)	Typ e (4,5 )	Mod e (6,7)	Typ e (6,7 )		LKZ	
MTA													
MYA	A	2	---	Q	Q	0	1	1	1	2	2	Q	Q
NDL	A	2	1	B*	B*	B*	6	1	1	1	6	B	B
NIA	A	2	13	3	3	3	1	1	3	3	2,3	3	0
NIC	A	2	2	0	0	C	4	1	4	1	4	0	0
NOR	A	2	1	8	8	8	6	1	6	1	2,P	8	(8)
NSL													
OES	A	2	1	1*	1*	1*	4	1	4	2	1	1	1
OMA	A	2	2	12*	12*	C	4	1	4	1	2	12	0
PAK	A	2	1	0	0	1	4	1	4	2	2	0	0
PAN	A	2	2	0	0	C	4	1	4	1	4	0	0
PAR	A	2	2	0	0	C	4	1	4	1	4	0	0
PHI	A	2	---	P*	P*	C	4	1	4	1	2	P	P
POL	A	1	1	F*	F*	B	6	1	1	1	F	F	F
POR	A	2	1	9*	9*	9*	1	1	7	1	5	9	9
PRU	A	2	2	3	3	9	1	1	7	1	4	3	0
RSA	A	1	1	6*	6*	6*	5	1	5	1	2	6	6
RUM	A	2	1	0	0	0	1	1	1	2	1	0	13
RUS (CIS)	A	1	1	13*	13*	13*	C	1	C	1	2,H	1	13
SAL	A	2	2	0	0	C	4	1	4	1	4	0	0
SAR	A	2	13	3	3	3	1	1	3	3	2	3	0

**Introduction**  
Country codes

Country	LAW	AMO ZAND											
		TONES			SIU Tones							GAIN LOAD	
		TONTBL			Tones							DMPF LOAD	
		CP		SIU	SIU C	DTR				SIU ANN	CONF C	GAINC D	
		CPTON		SIU TO N	SIU	HZE				SIU SPK Z	CONF-HW	DMPF LKZ	
		RT O TO N1	RT O TO N2	LK Z	LKZ	LK Z	Mod e (4,5)	Typ e (4,5 )	Mod e (6,7)	Typ e (6,7 )		LKZ	
SEN	A	2	---	T	T	T	1	1	9	1	3	T	0
SIM	A	2	2	3	3	C	4	1	4	1	2	3	0
SIN	A	2	---	M*	M*	0	1	1	1	2	2,C	M	M
SLO	A	2	1	R	R	J	4	1	4	2	2,U	B	0
SPA	A	2	13	5*	5*	5*	8	1	9	1	4	5	5
SRE	A	1	---	J*	J*	J*	4	1	4	2	1,O	J	J
SUD	A	8	3	7	7	1	4	1	4	2	2	7	7
SWD	A	2	2	U*	U*	2	4	1	4	1	2,S	U	U
SWZ	A	1	1	2*	2*	2*	4	1	4	1	1	2	2
SYR	A	2	13	3	3	3	1	1	3	3	2	3	0
TAN	A	2	2	3	3	C	4	1	4	1	2	B	0
THA	A	15	15	O*	O*	6	5	1	5	1	2,J	O	O
TRK	A	1	1	17*	17*	17*	4	1	4	1	V		0
TUN	A	2	13	T	T	T	1	1	9	1	3	T	0
UAE	A	2	2	7	7	7	7	1	7	1	2	7	0
UKR (CIS)	A	1	5	13	13	13	4	1	4	2	2,H	1	13
UNG	A	2	2	10*	10*	10*	1	1	1	1	E	1,10	(0)
URU	A	2	1	0	0	0	1	1	1	2	4	0	0
USA	μ	10	10	K*	K*	K*	2	1	2	1	2	K	(K)
VEN	A	2	1	N	N	9	1	1	7	1	2,4	N	0
VIT	A	2	2	0	0	C	4	1	4	1	2	0	C

Country	LAW	AMO ZAND											
		TONES			SIU Tones							GAIN LOAD	
		TONTBL			Tones							DMPF LOAD	
		CP		SIU	SIU C	DTR				SIU ANN	CONF C	GAIN C D	
		CPTON		SIU TON	SIU	HZE				SIU SPK Z	CONF-HW	DMPF LKZ	
		RTO TON1	RTO TON2	LKZ	LKZ	LKZ	Mod e (4,5)	Type (4,5)	Mod e (6,7)	Type (6,7)		LKZ	
WEI (CIS)	A	1	1	13	13	13	4	1	4	2	2,H	1	13
ZAI													

The timeslots specified in the tone tables apply to Highway 14 (0EH) or Highway 30 for EC systems (tsl converted to 2 MHz). The switching network input is used as the reference point for the level values (dBm0).

RTO1 is used for testing the 1st and 2nd HZE (dial tone receiver), as well as for loop tests on analog trunks.

RTO2 is used for testing the 3rd and 4th HZE if they are of a different type from the 1st and 2nd HZE.

RTO2 is also used in some cases to test busy tone detection.

Country codes marked \* are original countries for which the tone plan was created. The other LKZ codes are countries which share existing tone plans.



**NB: Please do not confuse the 0 (zero) with the O (Oscar)!**

## Introduction

### Country codes

## 1.3.2 CP-Tone-Tables

### CP-Tone 0 - 8

<b>Country</b> <b>CPTONE</b>	<b>BRD</b> <b>0</b>	<b>OES</b> <b>1</b>	<b>SWZ</b> <b>2</b>	<b>BEL</b> <b>3</b>	<b>AUS</b> <b>4</b>	<b>SPA</b> <b>5</b>	<b>RSA</b> <b>6</b>	<b>GBR</b> <b>7</b>	<b>FIN</b> <b>8</b>
KEINTON / NOTONE	00	00	00	00	00	00	00	00	00
WTONINT / INTDTN	01	01	01	01	01	01	01	01	01
WTONEXT / EXTDTN	02	02	01	02	02	02	02	02	02
SONDWTON / SPEC	03	03	03	03	03	03	03	03	03
FREITON / RNGBK	04	04	04	04	04	04	04	04	04
EFREITON / FRNG-BK	02	02	01	02	13	02	02	04	02
BTON / BUSY	05	05	05	05	05	05	05	05	05
AFSTON / OVRTN	06	06	06	06	06	06	06	06	06
ANKLTON / CAMP	07	07	07	07	07	07	07	22	06
DRUFTON / DATA	09	09	09	02	09	09	09	01	09
BITTEWAR / HOLD-LINE	16	16	16	16	16	16	16	16	16
NICHTERR / NOTREACH	17	17	17	17	17	17	17	17	17
NIMO / NOPO	18	18	18	18	18	18	18	18	18
NIBER / NOTALWD	19	19	19	19	19	19	19	19	19
ZZTNIMO / IMPOS-SFM	20	20	20	20	20	20	20	20	20
MUSIC / MOH	22	22	22	22	22	22	22	22	22
QTONNEG / NACK	05 <sup>1</sup>	05	05	05	05	05	05	14	05
QTONPOS / PACK	02 <sup>2</sup>	02	01	10	02	02	02	10	02
VOICEMAL / VOICE-MAL	00	00	00	00	00	00	00	00	00
TESTTON / TESTTONE	25	25	25	25	25	25	25	25	25
NACHRILV / MWI	21	21	21	21	21	21	21	21	21
GASSBES / CONG	05	05	05	11	05	05	11	11	05

<b>CPTONE</b>	<b>Country</b>	<b>BRD 0</b>	<b>OES 1</b>	<b>SWZ 2</b>	<b>BEL 3</b>	<b>AUS 4</b>	<b>SPA 5</b>	<b>RSA 6</b>	<b>GBR 7</b>	<b>FIN 8</b>
NUTON / NUTONE		08	08	08	08	08	08	08	08	08
\$QUEUES		00	00	00	00	00	00	00	00	00
\$QUEUEU		00	00	00	00	00	00	00	00	00
ROUTEADV		02	02	01	02	02	02	02	02	02
LCRET / LCRET		26	26	26	26	26	26	26	26	26
RECALL		01	01	01	01	01	01	01	01	01
\$OVRBUSY		00	00	00	00	00	00	00	00	00
\$OVRINJ		00	00	00	00	00	00	00	00	00
SPECRING		04	04	04	04	04	04	04	04	04
\$CALLWAIT		00	00	00	00	00	00	00	00	00
\$CAMPINV		00	00	00	00	00	00	00	00	00
\$CAMPREC		00	00	00	00	00	00	00	00	00
\$LDNCALL		00	00	00	00	00	00	00	00	00
\$OPERATOR		00	00	00	00	00	00	00	00	00
\$NOANS		00	00	00	00	00	00	00	00	00
\$HOLDREC		00	00	00	00	00	00	00	00	00
KONFTON / CONFTN		06	06	06	06	06	06	06	24	06
PRUEFTON / TEST		00	00	01	00	00	00	01	00	00
WTONEXT2 / EXTDTN2		02	02	01	13	13	13	02	02	02
BTLNAUFG / BONHK		05	05	05	05	05	05	05	05	05
WAHLVERZ / NODI- AL		05	05	05	05	05	05	05	05	05
WARTTON / HOLD		00	00	00	00	00	00	00	00	00
AUFMERK / ALERT		07	07	07	07	07	07	07	06	06
RUECKANK / CBKA- LERT		04	04	04	04	04	04	04	04	04
AFSAUTO / OVR		06	06	06	06	06	06	06	06	06
AFSVORW / OVR- WARN		00	00	00	00	00	00	00	24	00
RTOTON / RTOTONE		02	02	01	02	02	02	01	02	02

## Introduction

### Country codes

<b>CPTONE</b>	<b>Country</b>	<b>BRD 0</b>	<b>OES 1</b>	<b>SWZ 2</b>	<b>BEL 3</b>	<b>AUS 4</b>	<b>SPA 5</b>	<b>RSA 6</b>	<b>GBR 7</b>	<b>FIN 8</b>
AUFVERZ / REORDER		05	05	05	05	05	05	05	11	05
ORTANS / LOCANN		00	00	00	00	00	00	00	00	00
ATONKONF / KN-CONF		07	07	07	07	07	07	07	24	24
ARSTON / DND		04	04	04	04	04	04	04	05	04
QTONPMW / PCK-WD		02	02	01	10	02	02	02	03	02
ZIPTONE / ZIPTONE		02	02	01	02	02	02	01	08	02
\$PHONEMAIL MW TONE		00	00	00	00	00	00	00	00	00
AWVPL / ANNICPT		16	16	16	16	16	16	16	16	16
\$TONART_NULL		00	00	00	00	00	00	00	00	00
RTOTON1 / RTOTON1		02	02	01	02	02	02	01	02	02
RTOTON2 / RTOTON2		01	01	01	13	02	13	01	02	01
EANKLTON / FCAMP		07	07	07	07	07	07	07	08	06
TRENNTON / DISC-TONE		08	08	08	08	08	08	08	08	08
MAUFTON / CMAL-TONE		02	02	01	02	02	02	01	02	02
WARTEXT / HOLD-EXT		16	16	16	16	16	16	16	16	16
WARTINT / HOLDINT		22	22	22	22	22	22	22	22	22
WARTSA / HOLD-UNT		04	04	04	04	04	04	04	04	04
WARTPSE / HOLD-CCS		04	04	04	04	04	04	04	04	04
WARTH1 / HOLDH1		16	16	16	16	16	16	16	16	16
WARTH2 / HOLDH2		22	22	22	22	22	22	22	22	22
\$TDS TEST SILENCE		00	00	00	00	00	00	00	00	00
\$TDS TEST 1004HZ		00	00	00	00	00	00	00	00	00

<b>CPTONE</b>	<b>Country</b>	<b>BRD 0</b>	<b>OES 1</b>	<b>SWZ 2</b>	<b>BEL 3</b>	<b>AUS 4</b>	<b>SPA 5</b>	<b>RSA 6</b>	<b>GBR 7</b>	<b>FIN 8</b>
SAAO / HUNTGRUP		04	04	04	04	04	04	04	04	04
NAWA / POSTDIAL		01	01	01	01	01	01	01	01	01
PSMABSEN/ CC-MABSEN		05	05	05	05	05	05	05	05	05
\$BUSY WITH DIAL TONE		00	00	00	00	00	00	00	00	00
\$DEVICE LOCAL TONE		00	00	00	00	00	00	00	00	00
\$IDLE CODE		00	00	00	00	00	00	00	00	00
HEULTON / HOWL-TONE		00	00	00	00	00	00	00	00	00
\$DTMFTON		00	00	00	00	00	00	00	00	00
\$DTMF_SUPPRESSIO N		00	00	00	00	00	00	00	00	00
ROUTINGTON		00	00	00	00	00	00	00	00	00
PROVIDER_WARTE TON		00	00	00	00	00	00	00	00	00
OFF_HOOK_RECALLE		00	00	00	00	00	00	00	00	00
REQUEST_DIAL_TO NE		00	00	00	00	00	00	00	00	00
PAUSED_DIAL_TONE		02	02	01	02	02	02	02	02	02
RESERVE_85										

1 Tone is switched off by CP Software after 3.5 seconds

2 Ton wird durch die CP Software nach 3.5 Sekunden abgeschalte

(\$ ) Not used today

## CP-Tone 9 and A - H

<b>CPTONE</b>	<b>Country</b>	<b>POR 9</b>	<b>FKR A</b>	<b>NDL B</b>	<b>CHN C</b>	<b>ITL D</b>	<b>MAL E</b>	<b>POL F</b>	<b>MEX G</b>	<b>DAN H</b>
KEINTON / NOTONE		00	00	00	00	00	00	00	00	00
WTONTINT / INTDTN		01	01	01	01	01	01	01	01	01

## Introduction

### Country codes

<b>Country CPTONE</b>	<b>POR 9</b>	<b>FKR A</b>	<b>NDL B</b>	<b>CHN C</b>	<b>ITL D</b>	<b>MAL E</b>	<b>POL F</b>	<b>MEX G</b>	<b>DAN H</b>
WTONEXT / EXTDTN	02	02	02	01	02	02	01	01	02
SONDWTON / SPEC	03	03	03	03	03	03	03	03	03
FREITON / RNGBK	04	04	04	04	04	04	04	04	04
EFREITON / FRNG-BK	02	02	01	15	03	01	01	01	02
BTON / BUSY	05	05	05	05	05	05	05	05	05
AFSTON / OVRTN	06	06	06	06	06	06	06	06	06
ANKLTON / CAMP	07	07	07	07	07	22	07	07	07
DRUFTON / DATA	09	02	09	01	03	09	01	09	01
BITTEWAR / HOLD-LINE	16	16	16	16	16	16	16	16	16
NICHTERR / NOTREACH	17	17	17	17	17	17	17	17	17
NIMO / NOPO	18	18	18	18	18	18	18	18	18
NIBER / NOTALWD	19	19	19	19	19	19	19	19	19
ZZTNIMO / IMPOS-SFM	20	20	20	20	20	20	20	20	20
MUSIC / MOH	22	22	22	22	22	22	22	22	22
QTONNEG / NACK	05	05	05	05	23	14	05	05	05
QTONPOS / PACK	02	02	01	01	10	10	01	01	01
VOICEMAL / VOICE-MAL	00	00	00	00	00	00	00	00	00
TESTTON / TESTTONE	25	25	25	25	25	25	25	25	25
NACHRILV / MWI	21	21	21	21	21	21	21	21	21
GASSBES / CONG	05	05	11	11	11	11	05	05	05
NUTON / NUTONE	08	05	08	08	23	08	08	08	05
\$QUEUES	00	00	00	00	00	00	00	00	00
\$QUEUEL	00	00	00	00	00	00	00	00	00
ROUTEADV	02	02	02	01	02	02	01	01	02
LCRET / LCRET	26	26	26	26	26	26	26	26	26
RECALL	01	01	01	01	01	01	01	01	01



<b>CPTONE</b>	<b>Country</b>	<b>POR 9</b>	<b>FKR A</b>	<b>NDL B</b>	<b>CHN C</b>	<b>ITL D</b>	<b>MAL E</b>	<b>POL F</b>	<b>MEX G</b>	<b>DAN H</b>
\$OVRBUSY		00	00	00	00	00	00	00	00	00
\$OVRINJ		00	00	00	00	00	00	00	00	00
SPECRING		04	04	04	04	04	04	04	04	04
\$CALLWAIT		00	00	00	00	00	00	00	00	00
\$CAMPINV		00	00	00	00	00	00	00	00	00
\$CAMPREC		00	00	00	00	00	00	00	00	00
\$LDNCALL		00	00	00	00	00	00	00	00	00
\$OPERATOR		00	00	00	00	00	00	00	00	00
\$NOANS		00	00	00	00	00	00	00	00	00
\$HOLDREC		00	00	00	00	00	00	00	00	00
KONFTON / CONFTN		06	06	06	12	12	08	00	06	06
PRUEFTON / TEST		00	15	00	00	00	00	00	00	00
WTONEXT2 / EXTDTN2		02	13	02	00	02	02	13	02	02
BTLNAUFG / BONHK		05	05	05	05	23	05	05	05	05
WAHLVERZ / NODI- AL		05	05	05	05	23	05	05	05	05
WARTTON / HOLD		00	00	00	00	00	00	00	00	00
AUFMERK / ALERT		07	07	07	07	07	06	07	07	07
RUECKANK / CBKA- LERT		04	04	04	04	04	04	04	04	04
AFSAUTO / OVR		06	06	06	06	06	06	06	06	06
AFSVORW / OVR- WARN		00	00	00	00	00	24	00	00	00
RTOTON / RTOTONE		02	02	02	01	01	02	01	02	02
AUFVERZ / REOR- DER		05	05	05	05	23	11	05	05	05
ORTANS / LOCANN		00	00	00	00	00	00	00	00	00
ATONKONF / KN- CONF		07	07	07	07	07	24	00	07	07
ARSTON / DND		04	04	04	04	04	05	04	04	04

## Introduction

### Country codes

<b>Country</b> <b>CPTONE</b>	<b>POR</b> <b>9</b>	<b>FKR</b> <b>A</b>	<b>NDL</b> <b>B</b>	<b>CHN</b> <b>C</b>	<b>ITL</b> <b>D</b>	<b>MAL</b> <b>E</b>	<b>POL</b> <b>F</b>	<b>MEX</b> <b>G</b>	<b>DAN</b> <b>H</b>
QTONPMW / PCK- WD	02	02	01	01	10	10	01	01	02
ZIPTONE / ZIPTONE	02	02	01	01	03	02	01	01	02
\$PHONEMAIL MW TONE	00	00	00	00	00	00	00	00	00
AWVPL / ANNICPT	16	16	16	16	16	16	16	16	16
\$TONART_NULL	00	00	00	00	00	00	00	00	00
RTOTON1 / RTOTON1	02	02	02	01	01	02	01	01	00
RTOTON2 / RTOTON2	02	13	01	01	03	01	01	01	00
EANKLTON / FCAMP	07	02	07	07	07	07	07	07	07
TRENNTON / DISC- TONE	08	05	08	08	05	08	08	08	08
MAUFTON / CMAL- TONE	02	01	02	01	01	02	02	02	02
WARTEXT / HOLD- EXT	16	16	16	16	16	16	16	16	16
WARTINT / HOLDINT	22	22	22	22	22	22	22	22	22
WARTSA / HOLD- UNT	04	04	04	04	04	04	04	04	04
WARTPSE / HOLD- CCS	04	04	04	04	04	04	04	04	04
WARTH1 / HOLDH1	16	16	16	16	16	16	16	16	16
WARTH2 / HOLDH2	22	22	22	22	22	22	22	22	22
\$TDS TEST SI- LENCE	00	00	00	00	00	00	00	00	00
\$TDS TEST 1004HZ	00	00	00	00	00	00	00	00	00
SAAO / HUNTGRUP	04	04	04	04	04	04	04	04	04
NAWA / POSTDIAL	01	01	01	01	01	01	01	01	01
PSMABSEN/ CC- MABSEN	05	05	05	05	05	05	05	05	05
\$BUSY WITH DIAL TONE	00	00	00	00	00	00	00	00	00

<b>Country</b> <b>CPTONE</b>	<b>POR</b> <b>9</b>	<b>FKR</b> <b>A</b>	<b>NDL</b> <b>B</b>	<b>CHN</b> <b>C</b>	<b>ITL</b> <b>D</b>	<b>MAL</b> <b>E</b>	<b>POL</b> <b>F</b>	<b>MEX</b> <b>G</b>	<b>DAN</b> <b>H</b>
\$DEVICE LOCAL TONE	00	00	00	00	00	00	00	00	00
\$IDLE CODE	00	00	00	00	00	00	00	00	00
HEULTON /HOWL-TONE	00	00	00	00	00	00	00	00	00
\$DTMF_TON	00	00	00	00	00	00	00	00	00
\$DTMF_SUPPRESSION	00	00	00	00	00	00	00	00	00
ROUTINGTON	00	23	00	00	00	00	00	00	00
PROVIDER_WAIT TON	00	00	00	00	00	00	00	00	00
OFF_HOOK_RECALL	00	00	00	00	00	00	00	00	00
REQUEST_DIAL_TONE	00	00	00	00	00	00	00	00	00
PAUSED_DIAL_TONE	02	02	02	01	02	02	01	01	02
RESERVE_85									

### CP-Tone I - Q

<b>Country</b> <b>CPTONE</b>	<b>ARG</b> <b>I</b>	<b>CRE</b> <b>J</b>	<b>USA</b> <b>K</b>	<b>LUX</b> <b>L</b>	<b>SIN</b> <b>M</b>	<b>IDS</b> <b>N</b>	<b>THA</b> <b>O</b>	<b>PHI</b> <b>P</b>	<b>BRA</b> <b>Q</b>
KEINTON / NOTONE	00	00	00	00	00	00	00	00	00
WTONTINT / INTDTN	00	01	01	00	01	01	01	01	01
WTONEXT / EXTDTN	00	02	01	00	02	02	02	02	02
SONDWTON / SPEC	00	03	03	00	03	03	03	03	03
FREITON / RNGBK	00	04	08	00	04	04	04	04	04
EFREITON / FRNG-BK	00	01	08	00	15	02	15	03	02
BTON / BUSY	00	05	05	00	05	05	05	05	05
AFSTON / OVRTN	00	06	10	00	06	06	06	06	06
ANKLTON / CAMP	00	07	13	00	06	06	06	06	07

## Introduction

### Country codes

<b>Country</b> <b>CPTONE</b>	<b>ARG</b> <b>I</b>	<b>CRE</b> <b>J</b>	<b>USA</b> <b>K</b>	<b>LUX</b> <b>L</b>	<b>SIN</b> <b>M</b>	<b>IDS</b> <b>N</b>	<b>THA</b> <b>O</b>	<b>PHI</b> <b>P</b>	<b>BRA</b> <b>Q</b>
DRUFTON / DATA	00	01	04	00	01	01	01	01	09
BITTEWAR / HOLD-LINE	00	16	00	00	16	16	16	16	16
NICHTERR / NOTREACH	00	17	09	00	17	17	17	17	17
NIMO / NOPO	00	18	09	00	18	18	18	18	18
NIBER / NOTALWD	00	19	14	00	19	19	19	19	19
ZZTNIMO / IMPOS-SFM	00	20	09	00	20	20	20	20	20
MUSIC / MOH	00	22	00	00	22	22	22	22	22
QTONNEG / NACK	00	05	09	00	05	14	05	14	05
QTONPOS / PACK	00	01	01	00	01	10	01	10	02
VOICEMAL / VOICE-MAL	00	00	00	00	00	00	00	00	00
TESTTON / TESTTONE	00	25	25	00	25	25	25	25	25
NACHRILV / MWI	00	21	01	00	21	21	21	21	21
GASSBES / CONG	00	11	05	00	11	11	11	11	05
NUTON / NUTONE	00	08	09	00	08	08	08	08	08
\$QUEUES	00	00	07	00	00	00	00	00	00
\$QUEUEL	00	00	07	00	00	00	00	00	00
ROUTEADV	00	02	01	00	02	02	02	02	02
LCRET / LCRET	00	26	10	00	26	26	26	26	26
RECALL	00	01	01	00	01	01	01	01	01
\$OVRBUSY	00	00	10	00	00	00	00	00	00
\$OVRINJ	00	00	12	00	00	00	00	00	00
SPECRING	00	04	13	00	04	04	04	040	04
\$CALLWAIT	00	00	10	00	00	00	00	00	00
\$CAMPINV	00	00	09	00	00	00	00	00	00
\$CAMPREC	00	00	10	00	00	00	00	00	00
\$LDNCALL	00	00	02	00	00	00	00	00	00
\$OPERATOR	00	00	10	00	00	00	00	00	00

<b>CPTONE</b>	<b>Country</b>	<b>ARG I</b>	<b>CRE J</b>	<b>USA K</b>	<b>LUX L</b>	<b>SIN M</b>	<b>IDS N</b>	<b>THA O</b>	<b>PHI P</b>	<b>BRA Q</b>
\$NOANS		00	00	00	00	00	00	00	00	00
\$HOLDREC		00	00	10	00	00	00	00	00	00
KONFTON / CONFTN		00	06	10	00	06	06	06	06	06
PRUEFTON / TEST		00	00	15	00	00	00	00	00	00
WTONEXT2 / EXTDTN2		00	02	01	00	02	02	02	02	02
BTLNAUFG / BONHK		00	05	05	00	05	05	05	05	05
WAHLVERZ / NODI- AL		00	05	05	00	05	05	05	05	05
WARTTON / HOLD		00	00	00	00	00	00	00	00	00
AUFMERK / ALERT		00	07	00	00	06	06	06	06	07
RUECKANK / CBKA- LERT		00	04	00	00	04	04	04	04	04
AFSAUTO / OVR		00	06	00	00	06	06	06	06	06
AFSVORW / OVR- WARN		00	00	00	00	00	00	00	00	00
RTOTON / RTOTONE		00	02	00	00	02	02	02	02	02
AUFVERZ / REOR- DER		00	05	05	00	05	05	05	05	05
ORTANS / LOCANN		00	00	00	00	00	00	00	00	00
ATONKONF / KN- CONF		00	07	00	00	06	06	06	06	07
ARSTON / DND		00	04	08	00	04	04	04	04	04
QTONPMW / PCK- WD		00	01	01	00	01	10	01	10	02
ZIPTONE / ZIPTONE		02	01	02	03	02	01	01	02	02
\$PHONEMAIL MW TONE		00	00	11	00	00	00	00	00	00
AWVPL / ANNICPT		00	16	00	00	16	16	16	16	16
\$TONART_NULL		00	00	00	00	00	00	00	00	00
RTOTON1 / RTOTON1		00	00	10	00	02	02	02	02	02

## Introduction

### Country codes

<b>CPTONE</b>	<b>Country</b>	<b>ARG I</b>	<b>CRE J</b>	<b>USA K</b>	<b>LUX L</b>	<b>SIN M</b>	<b>IDS N</b>	<b>THA O</b>	<b>PHI P</b>	<b>BRA Q</b>
RTOTON2 / RTOTON2		00	13	05	00	01	01	01	01	02
EANKLTON / FCAMP		00	07	07	00	07	07	07	02	07
TRENNTON / DISC-TONE		00	08	09	00	08	08	08	08	08
MAUFTON / CMAL-TONE		00	01	01	00	02	02	02	02	02
WARTEXT / HOLD-EXT		00	16	00	00	16	16	16	16	16
WARTINT / HOLDINT		00	22	00	00	22	22	22	22	22
WARTSA / HOLD-UNT		00	04	08	00	04	04	04	04	04
WARTPSE / HOLD-CCS		00	04	00	00	04	04	04	04	04
WARTH1 / HOLDH1		00	16	00	00	16	16	16	16	16
WARTH2 / HOLDH2		00	22	00	00	22	22	22	22	22
\$TDS TEST SILENCE		00	00	00	00	00	00	00	00	00
\$TDS TEST 1004HZ		00	00	15	00	00	00	00	00	00
SAAO / HUNTGRUP		00	04	01	00	04	04	04	04	04
NAWA / POSTDIAL		00	01	01	00	01	01	01	01	01
PSMABSEN/ CC-MABSEN		00	05	00	00	05	05	05	05	05
\$BUSY WITH DIAL TONE		00	00	05	00	00	00	00	00	00
\$DEVICE LOCAL TONE		00	00	00	00	00	00	00	00	00
\$IDLE CODE		00	00	00	00	00	00	00	00	00
HEULTON /HOWL-TONE		00	00	00	00	00	00	00	00	00
\$DTMFTON		00	00	00	00	00	00	00	00	00
\$DTMF_SUPPRESSION		00	00	00	00	00	00	00	00	00
ROUTINGTON		00	00	00	00	00	00	00	00	00

<b>Country</b> <b>CPTONE</b>	<b>ARG</b> <b>I</b>	<b>CRE</b> <b>J</b>	<b>USA</b> <b>K</b>	<b>LUX</b> <b>L</b>	<b>SIN</b> <b>M</b>	<b>IDS</b> <b>N</b>	<b>THA</b> <b>O</b>	<b>PHI</b> <b>P</b>	<b>BRA</b> <b>Q</b>
PROVIDER_WARTE TON	00	00	00	00	00	00	00	00	00
OFF_HOOK_RECAL L	00	00	00	00	00	00	00	00	00
REQUEST_DIAL_TO NE	00	00	01	00	00	00	00	00	00
PAUSED_DIAL_TON E	01	01	01	01	01	01	01	01	01
RESERVE_85									

**CP-Tone R - W and 10, 12 - 15**

<b>Country</b> <b>CPTONE</b>	<b>GRI</b> <b>R</b>	<b>HKG</b> <b>S</b>	<b>MAR</b> <b>T</b>	<b>SWD</b> <b>U</b>	<b>A-Law</b> <b>V</b>	<b>U-Law</b> <b>W</b>	<b>UNG</b> <b>10</b>	<b>OMA</b> <b>12</b>	<b>GUS</b> <b>13</b>	<b>KAM</b> <b>14</b>	<b>ISR</b> <b>15</b>
KEINTON / NOTONE	00	00	00	00	00	00	00	00	00	00	00
WTONINT / INTDTN	01	01	01	02	01	01	02	01	01	01	01
WTONEXT / EXTDTN	02	02	01	02	01	01	02	02	01	02	02
SONDWTON / SPEC	03	03	03	03	03	03	03	03	03	03	01
FREITON / RNGBK	04	04	04	04	08	08	04	04	04	04	04
EFREITON / FRNG- BK	02	15	02	02	08	08	02	00	01	01	02
BTON / BUSY	05	05	05	05	05	05	05	05	05	05	05
AFSTON / OVRTN	06	06	06	06	10	10	06	06	06	06	06
ANKLTON / CAMP	07	07	07	06	13	13	07	06	07	07	06
DRUFTON / DATA	09	00	00	00	04	04	00	01	01	09	01
BITTEWAR / HOLD- LINE	16	16	06	16	16	16	16	16	16	16	16
NICHTERR / NOTREACH	17	17	16	17	05	05	17	17	17	17	17
NIMO / NOPO	18	18	17	18	05	05	18	18	18	18	18
NIBER / NOTALWD	19	19	18	19	14	14	19	19	19	19	19
ZZTNIMO / IMPOS- SFM	20	20	19	20	05	05	20	20	20	20	20

## Introduction

### Country codes

<b>Country</b> <b>CPTONE</b>	<b>GRI</b> <b>R</b>	<b>HKG</b> <b>S</b>	<b>MAR</b> <b>T</b>	<b>SWD</b> <b>U</b>	<b>A-Law</b> <b>V</b>	<b>U-Law</b> <b>W</b>	<b>UNG</b> <b>10</b>	<b>OMA</b> <b>12</b>	<b>GUS</b> <b>13</b>	<b>KAM</b> <b>14</b>	<b>ISR</b> <b>15</b>
MUSIC / MOH	22	22	22	22	22	22	22	22	22	22	22
QTONNEG / NACK	05	05	05	05	14	14	05	05	05	05	05
QTONPOS / PACK	02	10	10	02	01	01	02	01	01	01	10
VOICEMAL / VOICE- MAL	00	00	20	00	00	00	00	00	00	00	00
TESTTON / TESTTONE	25	25	25	25	25	25	25	25	25	13	15
NACHRILV / MWI	21	21	00	21	21	21	21	13	21	21	21
GASSBES / CONG	05	11	05	05	05	05	05	11	11	11	11
NUTON / NUTONE	08	08	08	08	05	05	08	08	08	08	08
\$QUEUES	00	00	00	00	00	00	00	00	00	00	00
\$QUEUEL	00	00	00	00	00	00	00	00	00	00	00
ROUTEADV	02	02	01	02	01	01	02	02	01	02	02
LCRET / LCRET	26	26	07	00	00	00	00	26	26	26	26
RECALL	01	01	01	02	01	01	02	01	01	01	01
\$OVRBUSY	00	00	00	00	10	10	00	00	00	00	00
\$OVRINJ	00	00	00	00	12	12	00	00	00	00	00
SPECRING	04	04	04	04	13	13	04	04	04	04	04
\$CALLWAIT	00	00	00	00	10	10	00	00	00	00	00
\$CAMPINV	00	00	00	00	00	00	00	00	00	00	00
\$CAMPREC	00	00	00	00	10	10	10	00	00	00	00
\$LDNCALL	00	00	00	00	01	01	00	00	00	00	00
\$OPERATOR	00	00	00	00	10	10	00	00	00	00	00
\$NOANS	00	00	00	00	00	00	00	00	00	00	00
\$HOLDREC	00	00	00	00	10	10	00	00	00	00	00
KONFTON / CONFTN	06	06	06	06	10	10	07	06	06	06	06
PRUEFTON / TEST	00	00	15	02	15	15	15	00	01	00	15
WTONEXT2 / EXTDTN2	02	02	13	02	01	01	02	02	01	02	02
BTLNAUFG / BONHK	05	05	05	05	05	05	05	05	05	05	05
WAHLVERZ / NODI- AL	05	05	05	05	05	05	05	05	05	05	05



<b>CPTONE</b>	<b>Country</b>	<b>GRI R</b>	<b>HKG S</b>	<b>MAR T</b>	<b>SWD U</b>	<b>A-Law V</b>	<b>U-Law W</b>	<b>UNG 10</b>	<b>OMA 12</b>	<b>GUS 13</b>	<b>KAM 14</b>	<b>ISR 15</b>
WARTTON / HOLD		00	00	00	00	00	00	00	00	09	00	00
AUFMERK / ALERT		07	07	00	06	10	10	07	06	06	07	06
RUECKANK / CBKA- LERT		04	04	06	04	04	04	04	04	01	04	04
AFSAUTO / OVR		06	06	04	06	06	06	06	06	06	06	06
AFSVORW / OVR- WARN		00	00	06	00	00	00	00	00	00	00	00
RTOTON / RTOTONE		02	02	02	02	15	15	15	01	01	01	02
AUFVERZ / REOR- DER		05	05	02	05	09	09	05	05	00	05	05
ORTANS / LOCANN		00	00	21	00	00	00	00	00	00	00	00
ATONKONF / KN- CONF		07	07	05	06	06	06	07	06	06	07	06
ARSTON / DND		04	04	07	04	08	08	04	04	01	04	04
QTONPMW / PCK- WD		02	10	04	04	01	01	02	01	01	04	01
ZIPTONE / ZIPTONE		03	01	02	02	01	01	02	02	01	01	02
\$PHONEMAIL MW TONE		00	00	00	00	11	11	00	00	00	00	00
AWVPL / ANNICPT		16	16	00	16	16	16	16	00	00	00	00
\$TONART_NULL		00	00	00	00	00	00	00	00	00	00	00
RTOTON1 / RTOTON1		02	02	00	02	10	10	00	02	01	01	02
RTOTON2 / RTOTON2		01	01	13	02	01	01	00	02	05	05	15
EANKLTON / FCAMP		07	07	22	07	10	10	07	06	06	07	06
TRENNTON / DISC- TONE		08	07	01	08	09	09	08	06	08	08	08
MAUFTON / CMAL- TONE		02	01	08	02	01	01	06	08	01	06	02
WARTEXT / HOLD- EXT		16	16	16	16	16	16	11	11	16	16	16
WARTINT / HOLDINT		22	22	16	22	22	22	22	22	22	22	22

## Introduction

### Country codes

<b>Country</b> <b>CPTONE</b>	<b>GRI</b> <b>R</b>	<b>HKG</b> <b>S</b>	<b>MAR</b> <b>T</b>	<b>SWD</b> <b>U</b>	<b>A-Law</b> <b>V</b>	<b>U-Law</b> <b>W</b>	<b>UNG</b> <b>10</b>	<b>OMA</b> <b>12</b>	<b>GUS</b> <b>13</b>	<b>KAM</b> <b>14</b>	<b>ISR</b> <b>15</b>
WARTSA / HOLD-UNT	04	04	22	04	08	08	04	04	04	04	04
WARTPSE / HOLD-CCS	04	04	04	04	04	04	04	04	04	04	04
WARTH1 / HOLDH1	16	16	04	16	04	04	16	16	16	16	16
WARTH2 / HOLDH2	22	22	16	22	22	22	22	22	22	22	22
\$TDS TEST SILENCE	00	00	00	00	00	00	00	00	00	00	00
\$TDS TEST 1004HZ	00	00	00	00	15	15	00	00	00	00	00
SAAO / HUNTGRUP	04	04	04	04	01	01	04	04	04	04	04
NAWA / POSTDIAL	01	01	01	02	01	01	02	02	01	02	01
PSMABSEN/ CC-MABSEN	05	05	05	05	05	05	05	05	05	05	05
\$BUSY WITH DIAL TONE	00	00	00	00	05	05	00	00	00	00	00
\$DEVICE LOCAL TONE	00	00	00	00	00	00	00	00	00	00	00
\$IDLE CODE	00	00	00	00	00	00	00	00	00	00	00
HEULTON / HOWL-TONE	00	00	00	00	00	00	00	00	09	00	00
\$DTMFTON	00	00	00	00	00	00	00	00	00	00	00
\$DTMF_SUPPRESSION	00	00	00	00	00	00	00	00	00	00	00
ROUTINGTON	00	00	00	00	00	00	00	00	00	00	00
PROVIDER_WARTE TON	00	00	00	00	00	00	00	00	00	00	00
OFF_HOOK_RECALL	00	00	00	00	00	00	00	00	00	00	00
REQUEST_DIAL_TONE	00	00	00	00	01	01	00	00	00	00	00
PAUSED_DIAL_TONE	02	02	01	02	01	01	02	02	01	02	02
RESERVE_85					23	23					

**CP-Tone 16 - 19 and 29**

<b>CPTONE</b>	<b>Country</b>	<b>KOR 16</b>	<b>TRK 17</b>	<b>JPN 18</b>	<b>VIT 19</b>	<b>YUG 29</b>
KEINTON / NOTONE		00	00	00	00	00
WTONINT / INTDTN		01	01	01	01	01
WTONEXT / EXTDTN		02	02	02	01	02
SONDWTON / SPEC		01	03	03	03	09
FREITON / RNGBK		04	04	04	04	04
EFREITON / FRNGBK		15	02	03	01	01
BTON / BUSY		05	05	05	05	05
AFSTON /OVRTN		06	06	06	06	06
ANKLTON / CAMP		07	07	07	07	07
DRUFTON / DATA		01	01	09	01	01
BITTEWAR / HOLDLINE		16	16	16	16	16
NICHTERR / NOTREACH		17	17	17	17	17
NIMO / NOPO		18	18	18	18	18
NIBER / NOTALWD		19	19	19	19	19
ZZTNIMO / IMPOSSFM		20	20	20	20	20
MUSIC / MOH		22	22	22	22	22
QTONNEG / NACK		05	05	05	05	05
QTONPOS / PACK		01	01	01	01	10
VOICEMAL / VOICEMAL		00	00	00	00	00
TESTTON / TESTTONE		23	23	00	25	25
NACHRILV / MWI		21	21	21	21	21
GASSBES / CONG		11	11	05	11	11
NUTON / NUTONE		05	08	08	08	08
\$QUEUES		00	00	00	00	00
\$QUEUEL		00	00	00	00	00
\$ROUTEADV		02	02	02	01	02
LCRET / LCRET		26	26	26	26	26
RECALL		01	01	01	01	01

## Introduction

### Country codes

<b>CPTONE</b>	<b>Country</b>	<b>KOR 16</b>	<b>TRK 17</b>	<b>JPN 18</b>	<b>VIT 19</b>	<b>YUG 29</b>
\$OVRBUSY		00	00	00	00	00
\$OVRINJ		00	00	00	00	00
SPECRING		04	04	04	04	04
\$CALLWAIT		00	00	00	00	00
\$CAMPINV		00	00	00	00	00
\$CAMPREC		00	00	00	00	00
\$LDNCALL		00	00	00	00	00
\$OPERATOR		00	00	00	00	00
\$NOANS		00	00	00	00	00
\$HOLDREC		00	00	00	00	00
KONFTON / CONFTN		06	06	06	06	06
PRUEFTON / TEST		23	23	00	00	01
WTONEXT2 / EXTDTN2		02	02	02	01	02
BTLNAUFG / BONHK		05	05	05	05	05
WAHLVERZ / NODIAL		05	05	05	05	05
WARTTON / HOLD		00	09	00	00	09
AUFMERK / ALERT		06	06	07	07	07
RUECKANK / CBKALERT		04	04	04	04	04
AFSAUTO / OVR		06	06	06	06	06
AFSVORW / OVRWARN		00	00	00	00	00
RTOTON / RTOTONE		02	01	02	01	01
AUFVERZ / REORDER		05	05	05	05	05
ORTANS / LOCANN		00	00	00	00	00
ATONKONF / KNCONF		07	07	7	07	07
ARSTON / DND		04	04	04	04	04
QTONPMW / PCKWD		01	01	01	01	04
ZIPTONE / ZIPTONE		02	01	02	01	01
\$PHONEMAIL MW TONE		00	00	00	00	00
AWVPL / ANNICPT		00	00	16	16	00
\$TONART_NULL		00	00	00	00	00
RTOTON1 / RTOTON1		02	02	02	01	02

<b>CPTONE</b>	<b>Country</b>	<b>KOR 16</b>	<b>TRK 17</b>	<b>JPN 18</b>	<b>VIT 19</b>	<b>YUG 29</b>
RTOTON2 / RTOTON2		02	02	01	24	01
EANKLTON / FCAMP		07	07	07	07	07
TRENNTON / DISCTONE		05	08	08	06	08
MAUFTON / CMALSTONE		02	02	02	01	06
WARTEXT / HOLDEXST		16	16	16	16	16
WARTINT / HOLDINT		22	22	22	22	22
WARTSA / HOLDUNT		04	04	04	04	04
WARTPSE / HOLDCCS		04	04	04	04	04
WARTH1 / HOLDH1		16	16	16	16	16
WARTH2 / HOLDH2		22	22	22	22	22
\$TDS TEST SILENCE		00	00	00	00	00
\$TDS TEST 1004HZ		00	00	00	00	00
SAAO / HUNTGRUP		04	04	04	04	04
NAWA / POSTDIAL		01	01	01	01	01
PSMABSEN/ CCMABSEN		05	05	05	05	05
\$BUSY WITH DIAL TONE		00	00	00	00	00
\$DEVICE LOCAL TONE		00	00	00	00	00
\$IDLE CODE		00	00	00	00	00
HEULTON / HOWLTONE		00	09	00	00	09
\$DTMFSTON		00	00	00	00	00
\$DTMF_SUPPRESSION		00	00	00	00	00
ROUTINGTON		00	00	00	00	00
PROVIDER_WARTETON		00	00	00	00	00
OFF_HOOK_RECALL		00	00	00	00	00
REQUEST_DIAL_TONE		00	00	00	00	00
PAUSED_DIAL_TONE		02	02	02	01	02
RESERVE_85						

## **Introduction**

*Country codes*

## 2 SIU Functions

### 2.1 Conference

The conference tables show which tones are consecutively injected for which times in conference, camp-on or override connections.

For injection into calls via the conference, several tones are generated in parallel in the SIU sometimes for the same application, in order to be able to serve the systems using a separate conference unit (e.g. compact systems).

At system startup, care must be taken to ensure that the required timeslots are also switched to a separate conference module by means of "nailed connections".

### 2.2 RTO Test

In order to ensure a reliable response of the HZE for RTO testing, such as echo testing on circuits, a suitable tone is required on a country-specific basis depending on the HZE. This need not necessarily be the "ext. dial tone", as this simulated CO dial tone (AWT) only has to create the same audible impression as the genuine dial tone sent by the exchange. There may be physical differences between AWT and simulated AWT which prevent the HZE from responding when the simulated AWT is applied.

Example: Republic of South Africa

CO dial tone (AWT):	400 Hz ampl.-modulated with 33 Hz
Simulated AWT:	400 Hz beating with 33 Hz

The tone suitable for RTO testing, which can be used in conjunction with the country-specific HZE, is identified with 1 or 2 in the RTO column in the tables.

### 2.3 Filter Selection for Dial Tone Receivers

Selection of the filter suitable for each country is set during initialization (mode setting).

The values set are listed in the country-specific receiver table.

### 2.4 Evaluation Processes for Dial Tone Receivers

The "HZE-MODE" table in Sect. 8 contains a list of the setting options incl. frequency, level, and application.

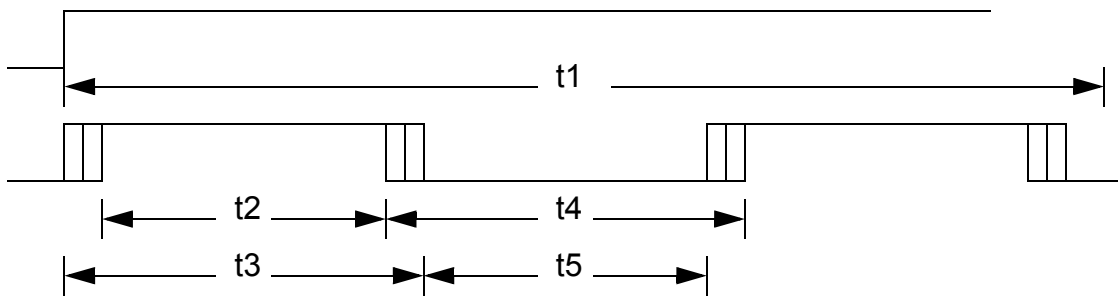
The required evaluation process is selected via the TYPE setting. The evaluation program is supplied with further parameters depending on the process.

## SIU Functions

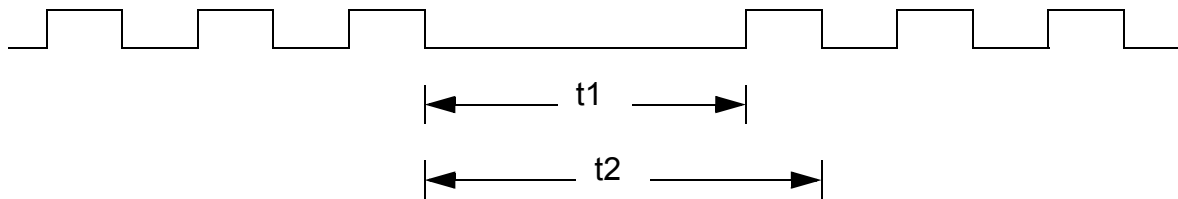
### Evaluation Processes for Dial Tone Receivers

The following evaluation processes are possible:

TYPE1: Differentiating between continuous tone and cadenced tone (e.g. B-tone)			
	Setting parameter:	minimum time for continuous tone	t1
		minimum pulse for B-tone	t2
		maximum pulse for B-tone	t3
		minimum pause for B-tone	t4
		maximum pause for B-tone	t5



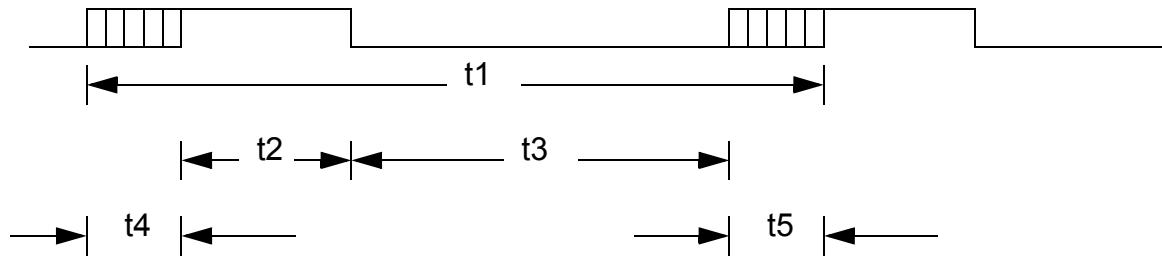
TYPE2: Differentiating between cadenced dial tone (IWT) and cadenced tone (e.g. B-tone)			
	Setting parameter:	min. long pause for IWT	t1
		max. time to negat. edge	t2



TYPE3: Evaluating the 2nd AWT in Belgium (precise pulse/pause measurement)			
	Setting parameter:	max. pulse + max. pause	t1
		minimum pulse	t2
		minimum pause	t3
		max. pulse - min. pulse	t4
		max. pause - min. pause	t5



		disconnect time	t6
--	--	-----------------	----



## **SIU Functions**

### *Evaluation Processes for Dial Tone Receivers*

### 3 Receiver Variants

MODE	Frequency range (Hz)	Threshold (dBm0)	Nominal value	Country of use
1	371 - 485	-20.9	425 Hz	AWT (CO dial tone) FRG
				1st AWT Belgium
				AWT Australia
				AWT Finland
				1st AWT Italy
2	320 - 660	- 20.9	350 Hz + 440 Hz	AWT USA
3	1118 - 1156	- 20.4	1140 Hz	2nd AWT Belgium
4	364 - 554	- 20.9	440 Hz	AWT Switzerland
				AWT Austria
				AWT China
				AWT "GDR"
5	366 - 427	- 34.4	400 Hz mod 33 Hz	AWT South Africa
6	76 - 607	- 23.4	450 Hz + 150 Hz	AWT Netherlands
				2nd AWT Italy
7	420 - 467	- 32.9	440 Hz (+ 330 Hz)	AWT UK
				2nd AWT Portugal
				AWT France
8	280 - 506	- 38.3	425 Hz	1st AWT Spain
				1st AWT Portugal
9	560 - 635	- 38.3	600 Hz	2nd AWT Spain
A	281 - 370	-32.5	330 Hz	2nd AWT France
B	335 - 484	-20.9	425 Hz	2nd AWT BRA
C	387 - 463	-28.0	425 Hz (+500) Hz	CIS (ANI-proof)

Tone to be evaluated:  $F = F1 (+ F2)$

Response for mode 1...6, 8, 9, B, D: F1 and F2 in filter range

Response for mode 7, A, C : F1 in filter range (F2 can be outside)

## Receiver Variants

### Examples:

2nd AWT France = 440 + 330 Hz, must be differentiated from 1st AWT France = 440 Hz.  
Here the 330 Hz component must be detected.

AWT UK is 440 + 330 Hz.

The 440 Hz component must be detected, 330 Hz is irrelevant.

Although in the CIS countries a 500-Hz ANI signal tone may additionally be present, this must not prevent reception

For mode 1...6, 8, 9, B reception is rejected if an additional tone is discovered in the out-band range (voice protection).

Mode = 2 can also be used for A-law from SIUX onwards (SIUCX, SICOE). For SIU type 1 and SIUCO, only for u-law (special US-SIU).

## 4 Announcements

For certain features, brief announcements can be played to the user. Six announcement texts have been specified for this purpose. These announcement texts are stored in different languages. The required language is selected via the language code (SPKZ).

SPKZ	Language	SPKZ	Language
0	Language-neutral	N	Greek
1	German	O	Slovakian
2	English (British)	P	Norwegian
3	French	Q	Catalonian
4	Spanish	R	(reserved)
5	Portuguese	S	Swedish
6	Dutch	T	Estonian
7	Danish	U	Slovenian
8	Finnish	V	Turkish
9	Brazilian	W	Croat
A	Italian	X	
B	Flemish	Y	
C	Chinese	Z	
D	English (USA)		
E	Hungarian		
F	Polish		
G	Czech		
H	Russian (GUS)		
I	Indonesian		
J	Thai		
K	Argentinian		
L	Rumanian		
M	Malayan		

### Wording of announcements

- German

## Announcements

<b>Tsl</b>	<b>German</b>	<b>Lang. code= 1</b>
16	Bitte warten	
17	Teilnehmer ist nicht erreichbar	
18	Funktion ist nicht möglich	
19	Sie sind nicht berechtigt	
20	Zur Zeit nicht möglich	
21	Nachricht liegt vor	

- English

<b>Tsl</b>	<b>English</b>	<b>Lang. code = 2</b>
16	Please hold the line	
17	Number not available	
18	Function not possible	
19	Access not authorized	
20	Currently in use	
21	You have a message	

- French

<b>Tsl</b>	<b>French</b>	<b>Lang. code = 3</b>
16	Un instant, s.v.p.	
17	Correspondant inaccessible	
18	Fonction impossible	
19	Non autorisé	
20	Bloqué pour l'instant	
21	Message en attente	

- Spanish

<b>Tsl</b>	<b>Spanish</b>	<b>Lang. code = 4</b>
16	Espere po favor	

<b>Tsl</b>	<b>Spanish</b>	<b>Lang. code = 4</b>
17	No accesible	
18	Función imposible	
19	No autorizado	
20	Bloquado de momento	
21	Mensaje en espera	

- Portuguese

<b>Tsl</b>	<b>Portuguese</b>	<b>Lang. code = 5</b>
16	Espere, faz favor	
17	Assinante nao éacessivel	
18	A funcao nao épossivel	
19	Nao estautorizado	
20	Atualmente bloqueado	
21	Mensagem disponivel	

- Dutch

<b>Tsl</b>	<b>Dutch</b>	<b>Lang. code = 6</b>
16	Een ogenblik alstublieft	
17	Abonnee niet bereikbaar	
18	Functie niet mogelijk	
19	U bent hiertoe niet bevoegd	
20	Momenteel geblokkeerd	
21	Een bericht voor u	

- Danish

<b>Tsl</b>	<b>Danish</b>	<b>Lang. code = 7</b>
16	Et ojeeblik	
17	Abonnent kan ikke kaldes	
18	Funktion ikke huldig	

## Announcements

<b>Tsl</b>	<b>Danish</b>	<b>Lang. code = 7</b>
19	Service ikke tilladt	
20	For tiden spaerret	
21	Meddelse foreligger	

- Finnish

<b>Tsl</b>	<b>Finnish</b>	<b>Lang. code = 8</b>
16	Odottakaa	
17	Tilaajaa ei saavuteta	
18	Toiminta mahdoton	
19	Teillä ei ole oikeutta	
20	Tällä hetkellä estetty	
21	Saapunut sanoma	

- Italian

<b>Tsl</b>	<b>Italian</b>	<b>Lang. code = A</b>
16	Un momemto	
17	Utente irragiungibile	
18	Funzione impossibile	
19	Lei non é abilitato	
20	Attualmente bloccato	
21	Messaggio nel mail-box	



## 5 Other Functions

### 5.1 Music-on-hold

Users held in a queue can be also supplied with music-on-hold instead with the "Please hold the line" announcement. Three melodies + "Quiet" are available. "Quiet" consists of pauses only, for customers who want neither the announcement nor music-on-hold. The selection is made via the music code.

<b>TSL</b>	<b>Music-on-hold</b>
22	Hicom melody (replaced by "Quiet")
22	Schäffler Dance
22	A Little Night Music
22	Quiet (pauses only)

### 5.2 Test Transmitter / Test Receiver

<b>TSL</b>	<b>Music-on-hold</b>
25	Test transmitter (pattern generator)
02	Test receiver (pattern receiver)

### 5.3 DTMF Receivers

The 4 DTMF receivers of the SIU are permanently switched to the following timeslots when the module is initialized. Highway A and highway B are the 2-MHz highways leading to the SIU. When using 4-MHz highways (SIUCO), these are understood as the two highways converted to 2 MHz.

<b>TSL</b>	<b>Hwy</b>	<b>Function</b>
00	A	DTMF receiver 0
01	A	DTMF receiver 1
00	B	DTMF receiver 2
01	B	DTMF receiver 3
03	A	DTMF receiver 4
04	A	DTMF receiver 5

## Other Functions

### DTMF Transmit Level Table

TSL	Hwy	Function
02	B	DTMF receiver 6
03	B	DTMF receiver 7

DTMF receivers 4,5,6,7 are only present in the SICOE of HICOM300 V3.5 or higher

## 5.4 DTMF Transmit Level Table

DTMF transmit table (SIU 2)					
LKZ	Filename	Country	Aggregate level in dBm0	Lower freq. lim. level in dBm0	Upper freq. lim. level in dBm0
0	PZJS1ES0	Standard	+0.80	-7.20	-5.20
(4)	PZJS1ES(4)	(Australia)	(-1.20)	(-9.20)	(-7.20)
5	PZJS1ES5	Spain/Belgium	+2.08	-5.92	-3.92
7	PZJS1ES7	United Kingdom	-5.20	-13.20	-11.20
B	PZJS1ESB	Netherlands	-3.00	-11.00	-9.00



Note: DTMF levels for Australia (4) have not been implemented.

## 5.5 DTMF Level Country Table

In the SIUCO, the level for its DTMF generators is set for each country code (LKZ) as follows:

LKZ	Aggregate level	LKZ	Aggregate level
0	+0.8 dBm0	Q	+0.8 dBm0
1	+0.8	R	
2	+0.8	S	+0.8
3	+0.8	T	+0.8
4	-3.0	U	+0.8

<b>LKZ</b>	<b>Aggregate level</b>	<b>LKZ</b>	<b>Aggregate level</b>
5	+2.08	V	
6	-3.0	W	+0.8
7	-5.2	X	
8	+0.8	Y	
9	+0.8	Z	
A	+0.8	10	+0.8
B	-3.0	11	
C	+0.8	12	+2.08
D	+0.8	13	+2.08
E	+0.8	14	+0.8
F	+0.8	15	+0.8
G	+0.8	16	+0.8
H	+0.8	17	+0.8
I		18	+0.8 ?
J	+0.8		19
K	+0.8		20
L			21
M	+0.8		22
N	+0.8		23
O	+0.8		24
P	+0.8		25

**Other Functions**  
*DTMF Level Country Table*

## 6 References

The table below gives the documents used for compiling the tone tables and receiver tables for the newly added countries from V3.1 onwards. PTT regulations of the countries from V2.1 and V2.2 are not listed here.

Further information concerning the operation of the tone generators and dial tone receivers may be obtained from the hardware and loadware specification for the SIU.

China:	TECHNICAL SPECIFICATION OF SPC DIGITAL PRIVATE EXCHANGES TO BE INTRODUCED January, 1987
France:	System Specification A20 SPECIFICATION TECHNIQUE ST/PAA/TPA/STP/1284 Spécification des tonalités et annonces parlées émises par un autocommutateur privé. SPECIFICATION TECHNIQUE ST/PAA/TPA/AGH/1108 June 1985 - 3eme EDITION Interface réseau analogique des matériels téléphoniques et télématiques
UK:	Audible Tones required in UK (A30 paper) BS 6450 Part 1 BS 6450 Part 2 BS 6305
Holland:	System Specification A30 Technical requirements for terminals for connection to the public telephone network, ... T 11-03
Italy:	System Specification A30 ISPT Chap.7, Chap 11
Poland:	Technical Requirements Digital Switching Systems IL - 94 - CF Date: 01-02-1991 Partial copy of Hr. Pfrommer (pages 42 - 44)
South Africa:	STANDARD SPECIFICATION FOR PRIVATE AUTOMATIC BRANCH EXCHANGES June 1988 Specification 3P26/PABX/JUNE 1988

References

## 7 Country Tables

### 7.1 Australia

Tone Table						
					SIUX SIUCO	V3.3+ V3.3+
<b>Date: 22/10/1996</b>		<b>Australia: LKZ = 4</b>				
TSL	Tone	TOG	Frequency Hz	RTO	Timing <u>pulse</u> / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	8	400 + 450		Continous	-11
2	Ext. Dial 1	6	425	x	Continous	-11
3	Special Dial	5	425		<u>200/300/200/300/200/</u> 800	-11
4	Ring	10	400 + 450		<u>400/200/400/2000</u>	-11
5	Busy	0	425		<u>380</u> / 380	-11
6	Override	1	425		<u>800</u> / 15000	-11
7	Camp On	2	425		<u>200</u> / 200 / <u>200</u> / 4400	-11
8	Number Unobtain- able	11	425		<u>2500</u> / 500	-11
9	Data Call	3	1300		<u>600</u> / 1740	-11
10	Pos. Acknowldege	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2	9	400 + 425		Continous	-11
14	Neg. Acknowldege	-				
15	-	-				
23	Alarm	-				
24	Conference Aux.	4	425		Continous	-11
25	-	-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/</u> 1000	-11

## Country Tables

### Australia

Conference Tones							
						SIUCO	V3.3+
Date: 12/05/1995			Australia: LKZ = 4				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
800	Conf.Aux	Cont.	Camp On	Cont.	Camp On	800	Conf. Aux.
Cont.	Quiet	-	-	-	-	500	Quiet
-	-	-	-	-	-	Cont.	Override
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 12/05/1995		Australia: LKZ = 4	
		1st DTR und 2nd DTR	3rd DTR und 4th DTR
Mode (filter selection)		8	8
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	600 ms	600 ms
Pulse min.	(T2)	280 ms	280 ms
Pulse max.	(T3)	480 ms	480 ms
Pause min.	(T4)	280 ms	280 ms
Pause max.	(T5)	480 ms	480 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



<b>Dial Tone Receiver (DTR)</b>			
		<b>SIUCO</b>	<b>V3.3+</b>
<b>Date: 12/05/1995</b>	<b>Australia: LKZ = 4</b>		
		<b>1st DTR und 2nd DTR</b>	<b>3rd DTR und 4th DTR</b>
Disconnect time	(T6)		



## 7.2 Belgium

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 18/06/1989			Belgium: LKZ = 3			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	6	425		<u>2000</u> /300	1
2	Ext. Dial	0	425	1	Continous	1
3	Special Dial	10	425 + 400		Continous	-0,8
4	Ring	1	425		<u>1000</u> /3000	-1
5	Busy	2	425		<u>500</u> /500	-1
6	Override	3	425		<u>200</u> /3500	-8
7	Camp On	4	425		<u>100</u> /1900	-8
8	Number Unobtain- able	11	950/1400/ 1800		<u>320</u> / <u>320</u> / <u>320</u> /1000	-8
9	Data Call					
10	Pos. Acknowledge	9	425		<u>40</u> /40	1
11	Congestion	8	425		<u>240</u> /260	-1
12	Conference	-				
13	Ext. Dial 2	7	900/1000/ 1140	2	<u>380</u> / <u>380</u> / <u>380</u>	1
14	Neg. Acknowledge	-				
15	-	-				
23	Conference Aux. 2	-				
24	Conference Aux.	5	425		Continous	-8
25		-				
26		-				

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Belgium: LKZ = 3				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
3500	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Belgium: LKZ = 3	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	3
Type (time evaluation)		1	3
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	650 ms	
Pulse min.	(T2)	200 ms	
Pulse max.	(T3)	550 ms	
Pause min.	(T4)	200 ms	
Pause max.	(T5)	550 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		1220 ms
Pulse min.	(T2)		205 ms
Pause min.	(T3)		445 ms
Pulse max. - pulse min.	(T4)		215 ms
Pause max. - pause min.	(T5)		390 ms

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Belgium: LKZ = 3		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		30 ms

*Belgium*

## 7.3 Brazil

Tone Table						
						SIUCO SIUX V3.2 V3.3+
Date: 27.10.1999		Brazil: LKZ = Q				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	0	425		<u>920</u> /80	-10
2	Ext. Dial	1	425	1,2	Continous	-10
3	Special Dial	8	425 + 400		Continous	-10
4	Ring	2	425		<u>1000</u> /4000	-10
5	Busy	3	425		<u>240</u> /260	-10
6	Override	4	425		<u>60</u> /1800	-19
7	Camp On	5	425		<u>200</u> /300/ <u>200</u> /1300	-19
8	Number Unobtain- able	11	950/1400/ 1800		<u>320</u> / <u>320</u> / <u>320</u> /960	-3
9	Data Call	6	1300		<u>600</u> /1800	-3
10	Follow-me	13	425		<u>120</u> /120	-10
11	Inaccessible net- work	14	425		<u>500</u> /500	-10
12	Conference	-				
13	Ext. Dial 2	-				
14	Neg. Acknowledge	10	425		<u>100</u> /100	-10
15	-	-				
23	-	-				
24	Conference Aux.	9	425		Continous	-19
25	-	-				
26	LCR Tone	12	1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> / 1000	

Conference Tones							
						SIUCO SCC SIUX	V3.2 V3.3 V3.3+
Date: 18/05/1994			Brazil: LKZ = Q				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	60	Conf. Aux.
300	Pause	-	-	-	-	100	Pause
200	Conf. Aux.	-	-	-	-	Cont.	Override
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 18/05/1994		Brazil: LKZ = Q	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		B	B
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	500 ms
Pulse min.	(T2)	180 ms	180 ms
Pulse max.	(T3)	320 ms	320 ms
Pause min.	(T4)	180 ms	180 ms
Pause max.	(T5)	320 ms	320 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 18/05/1994	Brazil: LKZ = Q		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		



## 7.4 Federal Republic of Germany

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 24/06/1989		Federal Republic of Germany: LKZ = 0				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	0	425	2	<u>200/300/200/300/200/</u> 800	-3
2	Ext. Dial	1	425	1	Continuous	-3
3	Special Dial	8	425 + 400		Continuous	-3
4	Ring	2	425		<u>1000/4000</u>	-3
5	Busy	3	425		<u>160/440</u>	-3
6	Override	4	425		<u>200/300/200/1300</u>	-14
7	Camp On	5	425		<u>100/1900</u>	-14
8	Number Unobtain- able	11	950/1400/ 1800		<u>320/320/320/960</u>	-3
9	Data Call	6	1300		<u>600/1800</u>	+1
10	Pos. Acknowledge	-				
11	NCN Dial	13	450		Dauer	-10
12	NCN Busy	14	450		<u>300/300</u>	-10
13	NCN Ring Back	15	450		<u>1000/2000</u>	-10
14	NCN Warning	7	450		<u>100/100/100/100/100/</u> 500	-10
15	-	-				
23		-				
24	Conference Aux.	9	425		Continuous	-14
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/</u> 1000	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Federal Republic of Germany: LKZ = 0				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Federal Republic of Germany: LKZ = 0	
		1st DTR and 2nd DTR	3rd and DTR 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	
Pulse min.	(T2)	160 ms	
Pulse max.	(T3)	250 ms	
Pause min.	(T4)	250 ms	
Pause max.	(T5)	440 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Federal Republic of Germany: LKZ = 0		
		1st DTR and 2nd DTR	3rd and DTR 4th DTR
Disconnect time	(T6)		



## 7.5 China

Tone Table						
						SIU SIUCO V3.1 V3.2
Date: 27/06/1989		China: LKZ = C				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	400	1,2	Continuous	-5
2	Ext. Dial	-				
3	Special Dial	6	400		<u>400</u> /40	-9
4	Ring	1	450		<u>1000</u> /4000	-9
5	Busy	2	450		<u>350</u> /350	-9
6	Override	3	450		<u>200</u> / <u>200</u> / <u>200</u> /600	-19
7	Camp On	4	450		<u>400</u> /4000	-19
8	Number Unobtain- able	8	450		<u>100</u> / <u>100</u> / <u>100</u> / <u>100</u> / <u>100</u> / <u>100</u> / <u>400</u> / <u>400</u>	-9
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	7	450		<u>700</u> /700	-9
12	Conference	9	1400		<u>400</u> /10000	-19
13	Ext. Dial 2	-				
14	Neg. Acknowledge	-				
15	Erstfreiton	5	450		Continuous	-9
23	Conference Aux. 2	11	1400		Continuous	-19
24	Conference Aux.	10	450		Continuous	-19
25	-	-				
26	LCR Tone	12	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> / 1000	-5

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993				China: LKZ = C			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
Cont.	Conference	Cont.	Camp On	Cont.	Camp On	Cont.	Override
		-	-	-	-	-	-
		-	-	-	-	-	-
		-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		China: LKZ = C	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	900 ms	900 ms
Pulse min.	(T2)	310 ms	310 ms
Pulse max.	(T3)	770 ms	770 ms
Pause min.	(T4)	310 ms	310 ms
Pause max.	(T5)	770 ms	770 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	China: LKZ = C		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*China*

## 7.6 Czech Republic

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 27/08/1993		Czech Republic: LKZ = J				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	425	1	Continuous	-5
2	Ext. Dial	1	425		<u>320/340/660/600</u>	-5
3	Special Dial	8	425		<u>160/160</u>	-5
4	Ring	2	425		<u>1000/4000</u>	-5
5	Busy	3	425		<u>320/340</u>	-5
6	Override	4	425		<u>320/340/320/1500</u>	-11
7	Camp On1	5	425		<u>320/5000</u>	-11
8	Number Unobtain- able	11	950/1400/ 1800		<u>320/320/320/1000</u>	-5
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	7	425		<u>120/120</u>	-5
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15	Camp On 2	6	425		<u>1000/160/340/3500</u>	-5
23	Conference Aux. 2	-				
24	Conference Aux.	9	425		Continuous	-11
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/</u> 1000	-5

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Czech Republic: LKZ = J				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
600	Int. Dial	Cont.	Camp On	Cont.	Camp On	Cont.	Override
Cont.	Quiet	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 07/09/1993		Czech Republic: LKZ = J	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	450 ms	
Pulse min.	(T2)	140 ms	
Pulse max.	(T3)	180 ms	
Pause min.	(T4)	420 ms	
Pause max.	(T5)	460 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 07/09/1993	Czech Republic: LKZ = J		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		



## 7.7 Denmark

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 15/09/1992			Denmark: LKZ = H			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	10	400 + 450		Continous	-6,5
2	Ext. Dial	1	425	1,2	Continous	-6,5
3	Special Dial	8	480 + 620		<u>20/20</u>	-6,5
4	Ring	2	425		<u>1000/4000</u>	-6,5
5	Busy	3	425		<u>240/240</u>	-6,5
6	Override	4	425		<u>20/500</u>	-6,5
7	Camp On	5	425		<u>200/200/200/3600</u>	-12,5
8	Number Unobtain- able	11	950/1400/ 1800		<u>320/320/320/1000</u>	-6,5
9	Data Call	-				
10	Pos. Acknowledge	6	425		<u>320/20</u>	-6,5
11	Congestion	7	425		<u>500/500</u>	-6,5
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15	-	-				
23	Conference Aux. 2	-				
24	Conference Aux.	0	425		Continous	-12,5
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/</u> 1000	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 27/08/1993			Denmark: LKZ = H				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
20	Ext. Dial	Cont.	Camp On	Cont.	Camp On	Cont.	Override
500	Pause	-	-	-	-	-	-
20	Ext. Dial	-	-	-	-	-	-
500	Pause						
20	Ext. Dial						
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1993		Denmark (Federal Republic of Germany): LKZ = 0	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	
Pulse min.	(T2)	160 ms	
Pulse max.	(T3)	250 ms	
Pause min.	(T4)	250 ms	
Pause max.	(T5)	440 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1993	Denmark (Federal Republic of Germany): LKZ = 0		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Denmark*

## 7.8 Finland

Tone Table						
					SIU SIUCO	V3.1 V3.2
Date: 14/08/1995		Finland: LKZ = 8				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial (Centrex access)	0	425	2	<u>200/300/200/300/200/800</u>	-8
2	Ext. Dial	1	425	1	Continuous	-8
3	Special Dial	8	425		<u>660/20</u>	-8
4	Ring back	2	425		<u>1000/4000</u>	-8
5	Busy	3	425	2	<u>300/300</u>	-8
6	Override	4	425		<u>200/300/200/1300</u>	-15
7	Camp On	-				
8	Number Unobtainable	11	950/1400/ 1800		<u>340/340/340/1000</u>	-15
9	Data Call	6	1300		<u>600/1800</u>	-8
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2	-				
14	Neg. Acknowledge	-				
15	-	-				
23	-	-				
24	Conference Aux.	5	425		Continuous	-15
25	-	-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/1000</u>	-8

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 02/08/1995			Finland: LKZ = 8				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	-	-	-	-	Cont.	Override
300	Idle Channel	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
5000	Idle Channel	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
300	Idle Channel	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Idle Channel	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 15/08/1995		Finland: LKZ = 8	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		6	6
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500	
Pulse min.	(T2)	220	
Pulse max.	(T3)	380	
Pause min.	(T4)	220	
Pause max.	(T5)	380	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 15/08/1995	Finland: LKZ = 8		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

**Note**

For the TYPE 2 times, pulse + pause max (T2) is now specified as 1000 ms because it was already coded in this way in the old version and adopted.



## 7.9 France

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 25/04/1989			France: LKZ = A			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	330		Continous	-8
2	Ext. Dial	1	440	1	Continous	-11
3	Special Dial	8	440/440 + 330		<u>750/750</u>	-8/-11
4	Ring	2	440		<u>1500/3500</u>	-11
5	Busy	3	440		<u>500/500</u>	-11
6	Override	4	440		<u>200/320/200/1400</u>	-11
7	Camp On	5	440		<u>300/30000</u>	-11
8	Number Unobtain- able	11	440/330/ 440		<u>350/350/350/500</u>	-11
9	Data Call	-				
10	Pos. Acknowledge	6	330		<u>50/50</u>	-8
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	9	330 + 440	2	Continous	-8/-11
14	Neg. Acknowledge	-				
15	Test	7/10	800		Continous	-2
23	Vermittlungston <sup>1</sup>	13	440		<u>40/60</u>	-11
24	Conference Aux.	10/7	440		Continous	-11
25	-	-				
26	LCR Tone	-	1800		<u>340/200/340/200/340/1000</u>	-11

<sup>1</sup> Routing Tone = Tonalité d'achievment for SNCF can only be implemented with SIUX, SIUCX

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			France: LKZ = A				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	300	Ext. Dial	300	Ext. Dial	Cont.	Override
300	Pause	1000	Pause	1000	Pause	-	-
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 15/06/1991		France: LKZ = A	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		7	A
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1200 ms	1200 ms
Pulse min.	(T2)	380 ms	380 ms
Pulse max.	(T3)	560 ms	560 ms
Pause min.	(T4)	400 ms	400 ms
Pause max.	(T5)	590 ms	590 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 15/06/1991	France: LKZ = A		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*France*

## 7.10 Great Britain

Tone Table						
						SIU SIUCO SIUX V3.1 V3.2 E V2.0
Date: 8.11.1999		Great Britain: LKZ = 7				
TSL	Tone	TOG	Frequency Hz	RTO	Timing <u>pulse</u> / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	8	400 + 450		Continous	-6
2	Ext. Dial	9	350 + 440	1,2	Continous	-6
3	Special Dial	11	440 + 480		<u>200/300/200/300/200/</u> 800	-6
4	Ring	10	400 + 450		<u>400/200/400/2000</u>	-11
5	Busy	0	425		<u>380/380</u>	-14,5
6	Override	1	1400		<u>200/1500</u>	-10
7	Camp On	-				
8	Number Unobtain- able	5	400		Cont.	-14,5
9	Data Call	-				
10	Pos. Acknowledge	2	520/400		<u>340/340/800</u>	-6
11	Congestion	4	425		<u>400/360/220/520</u>	-6
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	6	400/520		<u>340/340/800</u>	-6
15	RTO1-Test-World Wide	13	423	1 <sup>1</sup>	Dauer	-10
23		-				
24	Conference Aux.	3	1400		Continous	-10
25		-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/</u> 1000	-3

1 The "RTO-Test World Wide" tone is used worldwide at the British embassies, which use the tone table in conjunction with the receiver table of the country concerned.

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Great Britain: LKZ = 7				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
2000	Conf. Aux.	100	Conf. Aux.	100	Conf. Aux.	Cont.	Override
Cont.	Quiet	10000	Pause	100	Pause	-	-
		100	Conf. Aux.	100	Conf. Aux.	-	-
		Cont.	Quiet	10000	Pause		
				100	Conf. Aux.		
				100	Pause		
				100	Conf. Aux.		
			-	Cont.	Quiet	-	-

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 13/09/1990		Great Britain: LKZ = 7	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		7	7
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	600 ms	600 ms
Pulse min.	(T2)	165 ms	165 ms
Pulse max.	(T3)	500 ms	500 ms
Pause min.	(T4)	270 ms	270 ms
Pause max.	(T5)	650 ms	650 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
<b>Date: 13/09/1990</b>	<b>Great Britain: LKZ = 7</b>		
		<b>1st DTR and 2nd DTR</b>	<b>3rd DTR and 4th DTR</b>
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Great Britain*

## 7.11 Greece

Tone Table						
						SIU SIUCO V3.1 V3.2
Date: 16/02/1994			Greece: LKZ = R			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	0	425	2	<u>200/300/200/300/200/</u> 800	-3
2	Ext. Dial	1	425	1	<u>200/300/700/800</u>	-3
3	Special Dial	8	425 + 400		Continous	-3
4	Ring	2	425		<u>1000/4000</u>	-3
5	Busy	3	425		<u>160/440</u>	-3
6	Override	4	425		<u>200/300/200/1300</u>	-14
7	Camp On	5	425		<u>100/1900</u>	-14
8	Number Unobtain- able	11	950/1400/ 1800		<u>320/320/320/960</u>	-3
9	Data Call	6	1300		<u>600/1800</u>	+1
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15	-	-				
23	-	-				
24	Conference Aux.	9	425		Continous	-14
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/</u> 1000	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Greece (Federal Republic of Germany): LKZ = 0				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 07/09/1993		Czech Republic (Greece): LKZ = J	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	450 ms	
Pulse min.	(T2)	140 ms	
Pulse max.	(T3)	180 ms	
Pause min.	(T4)	420 ms	
Pause max.	(T5)	460 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 07/09/1993	Czech Republic (Greece): LKZ = J		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Greece*

## 7.12 Commonwealth of Independent States (CIS)

Tone Table						
						SIUX V3.4
Date: 12.5.1997		CIS: LKZ = 13				
TSL	Tone	TOG	Frequency Hz	RTO	Timing <u>pulse</u> / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	8	425	1,2	Continuous	-10
2	Special Dial	9	400 + 425		Continuous	-10
3	Waiting (Warning back)	3	425		<u>200</u> /5000	-10
4	Ring back	10	425		<u>1000</u> /4000	-10
5	Busy	0	425		<u>360</u> /360	-10
6	Override	1	425		<u>240</u> / <u>240</u> / <u>240</u> /1300	-15
7	Warning = Camp On (Call waiting)	2	425		<u>200</u> /5000	-15
8	Number Unobtain- able	11	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-10
9	Howler tone	5	1400/2060/ 2450		<u>1000</u> / <u>1000</u> / <u>1000</u> /1000	+0,66
10	Pos. Acknowledge	-				
11	Congestion	6	425		<u>180</u> /180	-10
12	Conference	-				
13	Checking tone	7	700		Continuous	-4
14	Neg. Acknowledge	-				
15	-	-				
23	Alarm	-				
24	Conference Aux.	4	425		Continuous	-15
25	-	-				
26	LCR Tone	12	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> / 1000	-10

All acoustic signal levels sending during conversation should be minus 15 dBm0 +/-5 dBm0.

Conference Tones							
						SIUX	V3.4
Date: 14/05/1996			CIS: LKZ = 13				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
500	Conf.Aux	Cont.	Camp On	Cont.	Camp On	Cont.	Override
Cont.	Quiet	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUX	V3.3+
Date: 10/1/1997		CIS: LKZ= 13	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		C	C
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	800 ms	800 ms
Pulse min.	(T2)	150 ms	150 ms
Pulse max.	(T3)	500 ms	500 ms
Pause min.	(T4)	100 ms	100 ms
Pause max.	(T5)	500 ms	500 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUX	V3.3+
Date: 10/1/1997	CIS: LKZ= 13		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		



## 7.13 Hong Kong

Tone Table						
						SIUX V3.4
Date: 26/1/1994		Hong Kong: LKZ = S				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	400		Continuous	-9
2	Ext. Dial	9	350 + 440		Cont.	-9
3	Special Dial	6	400		<u>400</u> /40	-9
4	Ring	10	440 + 480		<u>400</u> /200/ <u>400</u> /3000	-10
5	Busy	11	480 + 620		<u>500</u> /500	-10
6	Override	3	450		<u>200</u> /200/ <u>200</u> /600	-19
7	Camp On	4	450		<u>400</u> /4000	-19
8	Number Unobtainable	8	480 + 620		Continuous	-10
9	Data Call	-				
10	Pos. Acknowledge	1	450	1,2	Continuous	-9
11	Congestion	7	450		<u>700</u> /700	-9
12	Conference	-				
13	Ext. Dial 2 (simulated)	-				
14	Neg. Acknowledge	5	425		<u>200</u> /200	-9
15	Für ersten Freiton	13	440 + 480		Dauer	-9
23		-				
24	Conference Aux.	2	450		Continuous	-19
25	-	-				
26	LCR Tone		1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> /1000	-9

Angaben sind Einzelton-Pegel. Bei den Doppeltönen ist das Summensignal 3 dB lauter.

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Datum: 26/01/1994			Hong Kong: LKZ = S				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Quiet	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
			SIUCO V3.3+
Date: 27/01/1994		Hong Kong: LKZ = S	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		7	7
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	900 ms	900 ms
Pulse min.	(T2)	450 ms	450 ms
Pulse max.	(T3)	770 ms	770 ms
Pause min.	(T4)	450 ms	450 ms
Pause max.	(T5)	770 ms	770 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 27/01/1994	Hong Kong: LKZ = S		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Hong Kong*

## 7.14 Indonesia

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Datum: 27/08/1993			Indonesia: LKZ = N			
TSL	Ton Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	8	350 + 450		Cont.	-5
2	Ext. Dial	4	425	1,2	Cont.	-10
3	Special Dial	11	425 + 400		Cont.	-5
4	Ring	10	425		<u>1000/4000</u>	-10
5	Busy	0	425		<u>500/500</u>	-10
6	Override	1	425		<u>200/300/200/1300</u>	-16
7	Camp On	-				
8	Number Unobtain- able	5	950/1400/ 1800		<u>340/340/340/1000</u>	-10
9	Data Call	-				
10	Pos. Acknowledge	2	425		<u>40/40</u>	-5
11	Congestion	9	425		<u>250/250</u>	-10
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	6	425		<u>100/200</u>	-10
15	-	-				
23	-	-				
24	Conference Aux.	3	425		Cont.	-16
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/1000</u>	-5

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 27/08/1993			Indonesia: LKZ = N				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
1000	Ext. Dial	100	Ext. Dial	100	Ext. Dial	Cont.	Override
Cont.	Quiet	10000	Pause	100	Pause		
		100	Ext. Dial	100	Ext. Dial		
		Cont.	Quiet	10000	Pause		
				100	Ext. Dial		
				100	Pause		
				100	Ext. Dial		
				Cont.	Quiet		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Datum: 13/09/1990		China (Indonesia): LKZ = C	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	900 ms	900 ms
Pulse min.	(T2)	310 ms	310 ms
Pulse max.	(T3)	770 ms	770 ms
Pause min.	(T4)	310 ms	310 ms
Pause max.	(T5)	770 ms	770 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Datum: 13/09/1990	China (Indonesia): LKZ = C		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		



## 7.15 India

Tone Table						
						SIU SIUCO
						V3.3+ V3.4
Date: 31/07/1995		India (GBR): LKZ = 7				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	8	400 + 450		Continuous	-6
2	Ext. Dial 1	9	350 + 440		Continuous	-6
3	Special Dial	11	440 + 480		<u>200/300/200/300/200/</u> 800	-6
4	Ring Back	10	400 + 450		<u>400/200/400/2000</u>	-11
5	Busy	0	425		<u>380/380</u>	-14,5
6	Override	1	1400		<u>200/1500</u>	-10
7	Camp On	-				
8	Number Unobtain- able	5	400	1,2	Continuous	-14,5
9	Data Call	-				
10	Pos. Acknowledge	2	520/400		<u>340/340/800</u>	-6
11	Congestion	4	425		<u>400/360/220/520</u>	-6
12	Conference	-				
13		-				
14	Neg. Acknowledge	6	400/520		<u>340/340/800</u>	-6
15		-				
23		-				
24	Conference Aux.	3	1400		Continuous	-10
25		-				
26	LCR Tone	-				

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 25/07/1995			India (GBR): LKZ = 7				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
2000	Conf. Aux.	100	Conf. Aux.	100	Conf. Aux.	Cont.	Override
Cont.	Idle	10000	Idle	100	Idle	-	-
		100	Conf. Aux.	100	Conf. Aux.	-	-
		Cont.	Idle	10000	Pause		
				100	Conf. Aux.		
				100	Idle		
				100	Conf. Aux.		
			-	Cont.	Idle	-	-

Dial Tone Receiver (DTR)			
			V3.3
Date: 25/07/1995		India: LKZ = 11	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		5	5
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1000 ms	1000 ms
Pulse min.	(T2)	150 ms	150 ms
Pulse max.	(T3)	900 ms	900 ms
Pause min.	(T4)	150 ms	150 ms
Pause max.	(T5)	900 ms	900 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		



Dial Tone Receiver (DTR)			
			V3.3
Date: 25/07/1995	India: LKZ = 11		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*India*

## 7.16 Israel

Tone Table						
						SIUCO V3.4
Date: 7/2/1997		Israel: LKZ = 15				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	10	400 + 450		Continuous	-6
2	Ext. Dial	1	400	1,2	Continuous	-6
3	Waiting (Warning back)	11	400 + 450		<u>200/300/200/300/200/800</u>	-6
4	Ring back	2	400		<u>1000/3000</u>	-6
5	Busy	3	400		<u>500/500</u>	-6
6	Override	8	400 + 450		<u>100/1000</u>	-10
7	Camp On					
8	Number Unobtainable	4	950/1400/1800		<u>340/340/340/1000</u>	-6
9	Data Call					
10	Pos. Acknowledge	9	400 + 450		<u>60/40</u>	-10
11	Congestion	5	400		<u>260/240</u>	-6
12	Conference					
13	-					
14	Neg. Acknowledge					
15	Test	6	800		Continuous	0
23	-					
24	Conference Aux.	7	1400		Continuous	-10
25	-					
26	LCR Tone	12	1800		<u>340/200/340/200/340/1000</u>	-6

Externe Dial Tone, Ring Back, Busy and Congestion are in accordance with frequencies of the CO.

DTMF level : fu = -7,2 dBm0; fo = -5,2 dBm0

Conference Tones							
						SIUCO	V3.4
Datum: 7/2/1997			Israel: LKZ = 15				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	100	Conf. Aux.	100	Conf. Aux.	Cont.	Override
Cont.	Silent	10000	Silent	100	Silent	-	-
-	-	100	Conf. Aux.	100	Conf. Aux.	-	-
-	-	Cont.	Silent	10000	Silent	-	-
-	-	-	-	100	Conf. Aux.	-	-
-	-	-	-	100	Silent	-	-
-	-	-	-	100	Conf. Aux.	-	-
-	-	-	-	Cont.	Silent	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.4
Date: 7/2/1997		Israel: LKZ = 15	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		5	5
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	650	650
Pulse min.	(T2)	200	200
Pulse max.	(T3)	600	600
Pause min.	(T4)	200	200
Pause max.	(T5)	600	600
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			

Dial Tone Receiver (DTR)			
		SIUCO	V3.4
Date: 7/2/1997	Israel: LKZ = 15		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Israel*

## 7.17 Italy

Tone Table						
						SIUCO SIUCX V3.2 V3.4
Date: 06/06/1996		Italy: LKZ = D				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	10	350 + 425		Continuous	-6
2	Ext. Dial	0	425		<u>200/200/600/1000</u>	-6
3	Special Dial ENEL Dial BASA Busy	11	425	1	Continuous	-6
4	Ring Back	1	425		<u>1000/4000</u>	-6
5	Busy	2	425	2	<u>500/500</u>	-6
6	Override	3	425		<u>200/200/200/1400</u>	-11
7	Camp On	4	425		<u>100/4900</u>	-11
8	BASA Intern Dial	12	425		<u>200/200/200/200/200/1000</u>	-6
9	BASA + ENEL Hold	13	425		<u>200/200/200/3400</u>	-6
10	Pos. Acknowledge	8	425		<u>100/100/100/100/100/1500</u>	6
11	Congestion	6	425		<u>200/200</u>	-6
12	Conference	7	425		<u>200/9800</u>	-11
13	-	-				
14	-	-				
15	-	-				
23	Reorder	9	425		<u>100/100</u>	-6
24	Conference Aux.	5	425		Continuous	-11
25	-	-				
26	LCR Tone	14	1800		<u>340/200/340/200/340/1000</u>	-6

Basa Internal Dial, Hold and LCR are not generated on the hardware of SIUCO, but only on the SIUX and SIUCX of V3.4

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993				Italy: LKZ = D			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Ton Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
Cont.	Conf. Aux.	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Italy: LKZ = D	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	6
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	520 ms	520 ms
Pulse min.	(T2)	480 ms	480 ms
Pulse max.	(T3)	500 ms	500 ms
Pause min.	(T4)	480 ms	480 ms
Pause max.	(T5)	500 ms	500 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Italy: LKZ = D		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Italy*

## 7.18 Japan

Tone Table						
						SIUX V3.5
Date: 16.9.1997		Japan: LKZ = 18				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	400		<u>260/240/260/240/260/</u> 800	-10
2	Ext. Dial	1	400	1	Continuous	-10
3	Special Dial	8	390 + 410		Continuous	-10
4	Ring Back	2	390 + 410		<u>1000/2000</u>	-10
5	Busy	3	400		<u>500/500</u>	-10
6	Override	4	400		<u>200/300/200/1300</u>	-20
7	Camp On	5	400		<u>100/1900</u>	-20
8	Number Unobtainable	11	950/1400/ 1800		<u>320/320/320/960</u>	-10
9	Data Call	6	1300		<u>600/1800</u>	-10
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulated)	-				
14	Neg. Acknowledge	-				
15	-	-				
23		-				
24	Conference Aux.	9	400		Continuous	-20
25	-	-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/</u> 1000	-10

Conference Tones							
						SIUX	V3.5
Date: 15.9.1997			Japan: LKZ = 18				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

DTMF levels: -5.2 / -7.2 dBm0 (High/Low group)

The tone plan has not yet been assessed by the licensing authority, but only planning for development for the loadware.

Dial Tone Receiver (DTR)			
		SIUX	V3.5
Date: 16/9/1997		Japan: LKZ = 18	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		5	5
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	700 ms	700 ms
Pulse min.	(T2)	400 ms	400 ms
Pulse max.	(T3)	600 ms	600 ms
Pause min.	(T4)	400 ms	400 ms
Pause max.	(T5)	600 ms	600 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		

Dial Tone Receiver (DTR)			
		SIUX	V3.5
Date: 16/9/1997	Japan: LKZ = 18		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Japan*

## 7.19 Cameroon

Tone Table						
						SIU SIUCO SICOE
						V3.3+ V3.3+ V3.5
Date: 10/10/1996			Cameroon: LKZ = 14			
TSL	Tone	TOG	Frequency Hz	RTO	Timing <u>pulse</u> / pause in ms	Level dBm0
0	Idle Channel	-	0		Continuous	
1	Int. Dial	9	425	1	Continuous	-6
2	Ring- and Dial Tone	7	600		Continuous	-6
3	Special Dial	8	425 / 425+340		<u>1100</u> /1100	-2.9
4	Ring Back	2	425		<u>1000</u> /4000	-6
5	Busy	3	425	2	<u>500</u> /500	-6
6	Override	4	1400		<u>200</u> /2000	-13.5
7	Camp On	5	425		<u>200</u> /200/ <u>200</u> /4000	-13.5
8	Number Unobtain- able	11	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-6
9	Data Call	6	1300		<u>600</u> /1800	-1
10	Pos. Acknowledge	-				
11	Congestion	10	425		<u>200</u> /200	-6
12	Conference	-				
13	-	-				
14	-	-				
15	-	-				
23	Busy 2	1	600		<u>500</u> /500	-6
24	Conference Aux.	0	425		Continuous	-13.5
25	-	-				
26	LCR Tone	12	1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> / 1000	-6

RTO tests:

<b>RTO-Test:</b>	
1	Continuous tone, suitable for testing the dial tone receiver and for loopback testing of trunk and SLMA
2	Cadenced tone for testing the busy tone receiver

<b>Conference Tones</b>							
						<b>SIUCO SICOE</b>	<b>V3.3+ V3.5</b>
<b>Date: 10/10/1996</b>			<b>Cameroon: LKZ = 14</b>				
<b>Conference</b>		<b>Camp On</b>		<b>Night Camp On</b>		<b>Override</b>	
<b>Time (ms)</b>	<b>Tone</b>	<b>Time (ms)</b>	<b>Tone</b>	<b>Time (ms)</b>	<b>Tone</b>	<b>Time (ms)</b>	<b>Tone</b>
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
2000	Idle Channel	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Idle Channel	-	-	-	-	-	-

<b>Dial Tone Receiver (DTR)</b>			
			<b>SIU SIUCO SICOE</b>
			<b>V3.3+ V3.3+ V3.5</b>
<b>Date: 10/10/1996</b>		<b>Cameroon: LKZ = 14</b>	
		<b>1st DTR and 2nd DTR</b>	<b>3rd DTR and 4th DTR</b>
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1 (continuous tone / busy tone)</b>			
Continuous tone min.	(T1)	800 ms	800 ms
Pulse min.	(T2)	300 ms	300 ms
Pulse max.	(T3)	700 ms	700 ms
Pause min.	(T4)	300 ms	300 ms
Pause max.	(T5)	700 ms	700 ms
<b>Times type 2 (internal dial tone / busy tone)</b>			
Long pause	(T1)		



Dial Tone Receiver (DTR)			
		SIU SIUCO SICOE	V3.3+ V3.3+ V3.5
<b>Date: 10/10/1996</b>	<b>Cameroon: LKZ = 14</b>		
		<b>1st DTR and 2nd DTR</b>	<b>3rd DTR and 4th DTR</b>
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Cameroon*

## 7.20 Corea

Tone Table						
						SIUX V3.4
Version: 14.5.1997		South Korea: LKZ = 16				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	350 + 440		<u>1000</u> / 260	-10
2	Ext. Dial 1	1	350 + 440	1,2	Continuous	-10
3	Special Dial		-			
4	Ring back	2	440 + 480		<u>1000</u> / 2000	-15
5	Busy	3	480 + 620		<u>500</u> / 500	-15
6	Intrusion	4	440		<u>260</u> / 14 000	-20
7	Camp On	5	440 + 480		200 / 2000	-20
8	Number Unobtainable		-			
9	Data Call		-			
10	Pos. Acknowledge		-			
11	Congestion	6	480 + 620		<u>300</u> / 200	-15
12	Conference		-			
13	-		-			
14	Neg. Acknowledge		-			
15	First Ring	7	440 + 480		Continuous	-15
23	Test Tone	10	1014		Continuous	0
24	Conference Aux.	8	440		Continuous	-20
25	-		-			
26	LCR Tone	9	1800		<u>340/200/340/200/340/1000</u>	-15

This version is not yet approved by the customer

Conference Tones							
						SIUX	V3.4
Datum: 18.7.1996			South Korea: LKZ = 16				
Conference		Camp On		Night Subscriber Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
500	Conf.Aux	Cont.	Camp On	Cont.	Camp On	500	Conf. Aux.
Cont.	Quiet	-	-	-	-	6000	Quiet
-	-	-	-	-	-	Cont.	Override
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
Date: 18.7.1996		South Korea: LKZ = 16	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		2	2
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	800 ms	800 ms
Pulse min.	(T2)	160 ms	160 ms
Pulse max.	(T3)	760ms	760 ms
Pause min.	(T4)	160ms	160 ms
Pause max.	(T5)	760ms	760 ms

## 7.21 Malaysia

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 03/08/1993			Malaysia: LKZ = E			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	425	2	Continous	-5
2	Ext. Dial	9	425	1	Continous	-7
3	Special Dial	8	425 + 400		Continous	-5
4	Ring	2	425		<u>400/200/400/2000</u>	-10
5	Busy	3	425		<u>500/500</u>	-10
6	Override	4	425		<u>200/200/200/5000</u>	-16
7	Camp On	-				
8	Number Unobtain- able	5	425		<u>2500/500</u>	-10
9	Data Call	-				
10	Pos. Acknowledge	11	425		<u>40/40</u>	-5
11	Congestion	1	425		<u>500/250</u>	-10
12	Conference	6	425		Continous	-10
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	7	425		<u>100/200</u>	-10
15	-	-				
23	-	-				
24	Conference Aux.	10	425		Continous	-16
25	-	-				
26	LCR Tone	-	1800		<u>340/200/340/200/340/1000</u>	-7

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 03/08/1993			Malaysia: LKZ = E				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
1000	Conference	100	Conference	100	Conference	200	Conf. Aux.
Cont.	Quiet	10000	Idle Channel	100	Idle Channel	200	Idle Channel
		100	Conference	100	Conference	200	Conf. Aux.
		Cont.	Quiet	10000	Idle Channel	Cont.	Override
				100	Conference		
				100	Idle Channel		
				100	Conference		
				Cont.	Quiet		-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		China (Malaysia): LKZ = C	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	900 ms	900 ms
Pulse min.	(T2)	310 ms	310 ms
Pulse max.	(T3)	770 ms	770 ms
Pause min.	(T4)	310 ms	310 ms
Pause max.	(T5)	770 ms	770 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	China (Malaysia): LKZ = C		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Malaysia*



## 7.22 Morocco

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 20/06/1994			Morocco: LKZ = T			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	330		Continuous	-8
2	Ext. Dial	1	440	1	Continuous	-11
3	Special Dial	8	440 / 440+330		<u>750/750</u>	-8/-11
4	Ring	2	440		<u>1500/3500</u>	-11
5	Busy	3	440		<u>500/500</u>	-11
6	Override	4	440		<u>200/200/200/1400</u>	-11
7	Camp On	5	440		<u>300/30000</u>	-11
8	Number Unobtain- able	11	440/330/ 440		<u>350/350/350/500</u>	-11
9	Data Call	-				
10	Pos. Acknowledge	6	330		<u>50/50</u>	-8
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	9	600	2	Continuous	-6
14	Neg. Acknowledge	-				
15	Test	7/10	800		Continuous	-2
23		-				
24	Conference Aux.	10/7	440		Continuous	-11
25	-	-				
26	LCR Tone	-	1800		<u>340/200/340/200/340/</u> <u>1000</u>	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 06/07/1994			Morocco: LKZ = T				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	300	Ext. Dial	300	Ext. Dial	Cont.	Override
300	Pause	1000	Pause	1000	Pause	-	-
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
			SIUCO V3.3+
Date: 17/05/1994		Morocco: LKZ = T	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	2, 9
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1200 ms	200 ms
Pulse min.	(T2)	400 ms	80 ms
Pulse max.	(T3)	600 ms	100 ms
Pause min.	(T4)	400 ms	80 ms
Pause max.	(T5)	600 ms	1200 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 17/05/1994	Morocco: LKZ = T		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

HZE Mode 2 for SIU, HZE Mode 9 for SIUCO, SIUX etc.

*Morocco*

## 7.23 Mexico

Tone Table						
						SIU SIUCO V3.1 V3.2
Date: 27/08/1993		Mexico: LKZ = G				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	9	425	1,2	Continuous	-10
2	Ext. Dial	-				
3	Special Dial	8	425		1400/100	-10
4	Ring	2	425		1000/400	-10
5	Busy	3	425		250/250	-10
6	Override	4	1400		200/2000	-13,5
7	Camp On	5	425		160/140/160/4000	-15
8	Number Unobtainable	11	950/1400/ 1800		340/340/340/1000	-10
9	Data Call	6	1300		600/1800	-1
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulated)	10				
14	Neg. Acknowledge	-				
15	-	-				
23	Conference Aux. 2	1	1400		Continuous	-13,5
24	Conference Aux.	0	425		Continuous	-15
25	-	-				
26	LCR Tone	-	1800		340/200/340/200/340/ 1000	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Mexico: LKZ = G				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux. 2	Cont.	Camp On	Cont.	Camp On	Cont.	Override
2000	Pause						
200	Conf. Aux. 2						
Cont.	Quiet						

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 22/07/1991		Mexico (Portugal): LKZ = 9	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	7
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1200 ms	1200 ms
Pulse min.	(T2)	120 ms	120 ms
Pulse max.	(T3)	600 ms	600 ms
Pause min.	(T4)	200 ms	200 ms
Pause max.	(T5)	600 ms	600 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 22/07/1991	Mexico (Portugal): LKZ = 9		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Mexico*



## 7.24 Netherlands

Tone Table						
						SIU SIUCO
						V3.4 V3.4
Date: 22/04/1996		Netherlands: LKZ = B				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	0	425	2	Continous	-3
2	Ext. Dial	9	150 + 450	1	Continous	-3
3	Special Dial	8	425 + 400		Continous	-3
4	Ring	2	425		<u>1000</u> /4000	-3
5	Busy	3	425		<u>500</u> /500	-3
6	Override	4	425		<u>200</u> / <u>300</u> / <u>200</u> /1300	-14
7	Camp On	5	425		<u>100</u> /1900	-14
8	Umber Unobtain- able	11	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-3
9	Data Call	10	1300		<u>600</u> /1800	+0,66
10	Pos. Acknowledge	-				
11	Congestion	1	425		<u>250</u> /250	-3
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15	-	-				
23	Alarm	-				
24	Conference Aux.	6	425		Continous	-14
25	-	-				
26	LCR Tone	12	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> / 1000	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Netherlands: LKZ = B				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
			SIUCO V3.3+
Date: 13/09/1990		Netherlands: LKZ = B	
		2st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		6	1
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1020 ms	1020 ms
Pulse min.	(T2)	180 ms	180 ms
Pulse max.	(T3)	600 ms	600 ms
Pause min.	(T4)	160 ms	160 ms
Pause max.	(T5)	620 ms	620 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Netherlands: LKZ = B		
		2st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Netherlands*

## 7.25 Austria

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 28/10/1994			Austria: LKZ = 1			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	425	2	<u>200/300/200/300/200/800</u>	-3,4
2	Ext. Dial	1	425	1	Continous	-3,4
3	Special Dial	8	425 + 400		Continous	-3,4
4	Ring	2	425		<u>1000/4000</u>	-3,4
5	Busy	3	425		<u>300/300</u>	-3,4
6	Override	4	425		<u>200/300/200/1300</u>	-10,4
7	Camp On	5	425		<u>100/1900</u>	-8,4
8	Number Unobtainable	11	950/1400/ 1800		<u>320/320/320/960</u>	-3,4
9	Data Call	6/10	1300		<u>600/1800</u>	-0,4
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulated)	-				
14	Neg. Acknowledge	-				
15	Test Tone (only for CIS)	7	700		Continous	-4,0
23	Conf. Aux. 2	10/6	425		Continous	-10,4
24	Conf. Aux.	9	425		Continous	-8,4
25	-	-				
26	LCR Tone					

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Austria: LKZ = 1				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux. 2	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux. 2	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 30/03/1995		Austria: LKZ = 1	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	
Pulse min.	(T2)	100 ms	
Pulse max.	(T3)	150 ms	
Pause min.	(T4)	100 ms	
Pause max.	(T5)	150 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1200 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 30/03/1995	Austria: LKZ = 1		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Austria*



## 7.26 Oman

Tone Table						
						SIU SIUCO
						V3.3+ V3.3+
Date: 17/11/1995			Oman: LKZ = 12			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	9	350 + 440		Continuous	-13
2	Ext. Dial 1	5	425	1.2	Continuous	-5
3	Operator Call	4	440		Continuous	-13
4	Ring	10	400 + 480		<u>1000</u> /2000	-17
5	Busy	11	480 + 620		<u>500</u> /500	-22
6	Intrusion	6	440		<u>260</u> /14000	-24
7	Service Set	0	480		Continuous	-24
8	Number Unobtain- able	1	425		<u>200</u> /300	-13
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	8	480 + 620		<u>240</u> /260	-24
12	Conference	-				
13	Message Waiting	2	440		<u>1240</u> /260	-13
14	Neg. Acknowledge	-				
15	-	-				
23	Alarm	-				
24	Conference Aux.	7	440		Continuous	-24
25	-	-				
26	LCR Tone	12	1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> / 1000	-13

Conference Tones							
						SIUCO SIU	V3.3+ V3.3+
Date: 17/11/1995				Oman: LKZ = 12			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
500	Conf. Aux.	100	Conf. Aux.	-	-	500	Conf. Aux.
Cont.	Quiet	10000	Quiet	-	-	6000	Quiet
-	-	100	Conf. Aux.	-	-	Cont.	Override
-	-	Cont.	Quiet	-	-	-	-



## Note

DTMF: DTMF tones for Oman are set to LKZ=5 with AMO-ZAND command.

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Oman (China): LKZ = C	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	900 ms	900 ms
Pulse min.	(T2)	310 ms	310 ms
Pulse max.	(T3)	770 ms	770 ms
Pause min.	(T4)	310 ms	310 ms
Pause max.	(T5)	770 ms	770 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		

<b>Dial Tone Receiver (DTR)</b>			
		<b>SIUCO</b>	<b>V3.3+</b>
<b>Date: 13/09/1990</b>	<b>Oman (China): LKZ = C</b>		
		<b>1st DTR and 2nd DTR</b>	<b>3rd DTR and 4th DTR</b>
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Oman*

## 7.27 Pakistan

Dial Tone Receiver (DTR)			
		SIUCO	V3.5
Date: 11.5.1998	Pakistan: LKZ = 28		
		1st DTR und 2nd DTR	3rd DTR und 4th DTR
Mode (filter selection)		D	D
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	600 ms	600 ms
Pulse min.	(T2)	225 ms	225 ms
Pulse max.	(T3)	330 ms	330 ms
Pause min.	(T4)	315 ms	315 ms
Pause max.	(T5)	880 ms	880 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		



## Note concerning RTO tests:

In Pakistan the tone table LKZ=0 (BRD) is in use. There are two RTO tests recommended. But for this receiver table with LKZ=28 (PAK) install **only** test 1.

*Pakistan*

## 7.28 Philippines

Tone Table						
					SIU SIUCO	V3.1 V3.2
Date: 15.5.1997		Philippines: LKZ = P				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	8	400 + 450		Continous	-7
2	Ext. Dial	4	425	1	Continous	-10
3	Special Dial	11	425 + 480		Continous	-5
4	Ring	10	425 + 480		<u>1000</u> /4000	-5
5	Busy	0	400		<u>500</u> /500	-10
6	Override	1	425		<u>200</u> /300/ <u>200</u> /1300	-16
7	Camp On	-				
8	Number Unobtain- able	5	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-10
9	Data Call	-				
10	Pos. Acknowledge	2	425		<u>1000</u> /4000	-5
11	Congestion	9	480 + 620		<u>240</u> /260	-10
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	6	425		<u>100</u> /200	-10
15	-	-				
23	-	-				
24	Conference Aux.	3	425		Continous	-16
25	-	-				
26	LCR Tone	12	1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> / 1000	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 27/08/1993			Philippines: LKZ = P				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
1000	Ext. Dial	100	Ext. Dial	100	Ext. Dial	Cont.	Override
Cont.	Quiet	10000	Pause	100	Pause		
		100	Ext. Dial	100	Ext. Dial		
		Cont.	Quiet	10000	Pause		
				100	Ext. Dial		
				100	Pause		
				100	Ext. Dial		
				Cont.	Quiet		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Philippines (Federal Republic of Germany): LKZ = 0	
		1st dTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	
Pulse min.	(T2)	160 ms	
Pulse max.	(T3)	250 ms	
Pause min.	(T4)	250 ms	
Pause max.	(T5)	440 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
<b>Date: 13/09/1990</b>	<b>Philippines (Federal Republic of Germany): LKZ = 0</b>		
		1st dTR and 2nd DTR	3rd DTR and 4th DTR
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		



## 7.29 Poland

Tone Table						
						SIU SIUCO V3.1 V3.2
Date: 09/11/1992		Poland: LKZ = F				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	9	425	1,2	Continuous	-10
2	Ext. Dial	-				
3	Special Dial	8	425		<u>1400</u> /100	-10
4	Ring	2	425		<u>1000</u> /4000	-10
5	Busy	3	425		<u>500</u> /500	-10
6	Override (warning tone)	4	425		<u>100</u> /4900	-12
7	Camp On(call waiting tone)	5	425		<u>160</u> /140/ <u>160</u> /4000	-12
8	Number Unobtainable	11	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-10
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulated)	10	425 + 330		Continuous	-10
14	Neg. Acknowledge	-				
15	-	-				
23	Conference Aux. 2	-				
24	Conference Aux.	0	425		Continuous	-12
25	-	-				
26	LCR Tone	-	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> / <u>1000</u>	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Poland: LKZ = F				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Ton Tone
Cont.	Pause	Cont.	Camp On	Cont.	Camp On	Cont.	Override

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1993		Poland (Netherlands): LKZ = B	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		6	1
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1020 ms	1020 ms
Pulse min.	(T2)	180 ms	180 ms
Pulse max.	(T3)	600 ms	600 ms
Pause min.	(T4)	160 ms	160 ms
Pause max.	(T5)	620 ms	620 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

## 7.30 Portugal

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 24/06/1989			Portugal: LKZ = 9			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	5	0			
1	Int. Dial	9	350 + 440	2	Continous	-5
2	Ext. Dial	0	425	1	Continous	-5
3	Special Dial	6	425		<u>200/300/200/300/200/</u> 800	-5
4	Ring	1	425		<u>1000/4000</u>	-5
5	Busy	2	425		<u>160/480</u>	-5
6	Override	3	425		<u>200/300/200/1300</u>	-13,5
7	Camp On	4	425		<u>100/1000</u>	-13,5
8	Number Unobtain- able	11	950/1400/ 1800		<u>340/340/340/1000</u>	-12
9	Data Call	8	1300		<u>600/1800</u>	-1
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15		-				
23		-				
24	Conference Aux.	7	425		Continous	-13,5
25		-				
26	LCR Tone	-	1800		<u>340/200/340/200/340/</u> 1000	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Portugal: LKZ = 9				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause					-	-
200	Conf. Aux.					-	-
Cont.	Quiet						

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 22/06/1991		Portugal: LKZ= 9	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	7
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1200 ms	1200 ms
Pulse min.	(T2)	120 ms	120 ms
Pulse max.	(T3)	600 ms	600 ms
Pause min.	(T4)	200 ms	200 ms
Pause max.	(T5)	600 ms	600 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 22/06/1991	Portugal: LKZ= 9		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Portugal*



## 7.31 Republic of South Africa

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 01/06/1992		Republic of South Africa: LKZ = 6				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	4	0			
1	Int. Dial	0	400	1,2	Continuous	-7
2	Ext. Dial	8	367 + 433		Continuous	-7
3	Special Dial	11	400		40/40	-7
4	Ring	9	367 + 433		400/200/400/2000	-7
5	Busy	1	400		500/500	-7
6	Override	2	400		200/300/200/1300	-9
7	Camp On	3	400		100/15000	-11
8	Number Unobtain- able	7	400		2500/500	-7
9	Data Call					
10	Pos. Acknowledge	-				
11	Congestion	6	400		250/250	-7
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)					
14	Neg. Acknowledge	-				
15		-				
23	Conference Aux. 2	10	400		Continuous	-11
24	Conference Aux.	5	400		Continuous	-9
25		-				
26	LCR Tone	12	1800		340/200/340/200/340/ 1000	-7

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Republic of South Africa: LKZ = 6				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 03/09/1990		Republic of South Africa: LKZ = 6	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		5	5
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	650 ms	650 ms
Pulse min.	(T2)	220 ms	220 ms
Pulse max.	(T3)	530 ms	530 ms
Pause min.	(T4)	220 ms	220 ms
Pause max.	(T5)	530 ms	530 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 03/09/1990	Republic of South Africa: LKZ = 6		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Republic of South Africa*

## 7.32 Singapore

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 10/03/1993			Singapore: LKZ = M			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	9	400 + 450		Continous	-7
2	Ext. Dial	0	425	1	Continous	-5
3	Special Dial	8	480 + 620		Continous	-5
4	Ring	11	400 + 450		<u>400/200/400/2000</u>	-12
5	Busy	3	425		<u>750/750</u>	-10
6	Override	4	425		<u>200/200/200/5000</u>	-16
7	Camp On	-				
8	Number Unobtain- able	5	425		<u>2500/500</u>	-10
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	1	425		<u>250/250</u>	-10
12	Conference	-				
13	Ext. Dial 2 (simualt- ed)	-				
14	Neg. Acknowledge	-				
15	Erst-Freiton	10	400 + 450		Continous	-12
23	Conference Aux. 2	6	425		Continous	-10
24	Conference Aux.	7	425		Continous	-16
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/1000</u>	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 27/08/1993			Singapore: LKZ = M				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
4000	Congestion	Cont.	Camp On	Cont.	Camp On	200	Conf. Aux.
-	-	-	-	-	-	200	Pause
-	-	-	-	-	-	200	Conf. Aux.
-	-	-	-	-	-	Cont.	Override

Dial Tone Receiver (DTR)			
			SIUCO V3.3+
Date: 13/09/1993	Singapore (Federal Republic of Germany): LKZ = 0		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	2
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	
Pulse min.	(T2)	160 ms	
Pulse max.	(T3)	250 ms	
Pause min.	(T4)	250 ms	
Pause max.	(T5)	440 ms	
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		800 ms
Pulse max. + pause max.	(T2)		1000 ms
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1993	Singapore (Federal Republic of Germany): LKZ = 0		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Singapore*



## 7.33 Spain

Tone Table						
					SIU SIUCO	V3.1 V3.2
Date: 24/06/1989		Spain: LKZ = 5				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	0	425		<u>200/300/200/300/200/</u> 800	-6
2	Ext. Dial	1	425	1	Continuous	-6
3	Special Dial	8	425		<u>1000/100</u>	-6
4	Ring	2	425		<u>1500/3000</u>	-6
5	Busy	3	425		<u>200/200</u>	-6
6	Override	4	1400		<u>400/5000</u>	-28
7	Camp On	5	425		<u>600/200/600/1000</u>	-28
8	Number Unobtain- able	11	950/1400/ 1800		<u>320/400/320/1000</u>	-13
9	Data Call	6/10	1300		<u>600/1800</u>	-2
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	7	600	2	Continuous	-6
14	Neg. Acknowledge	-				
15		-				
23	Conference Aux. 2	10/6	1400		Continuous	-28
24	Conference Aux.	9	425		Continuous	-28
25		-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/</u> 100	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993				Spain: LKZ = 5			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
400	Conf. Aux. 2	Cont.	Camp ON	Cont.	Camp On	Cont.	Override
5000	Pause	-	-	-	-	-	-
400	Conf. Aux. 2	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date: 11.5.1999		Spain: LKZ = 5	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		8	9
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	1200 975 ms	1200 / 975 ms
Pulse min.	(T2)	140 ms	140 ms
Pulse max.	(T3)	260 ms	260 ms
Pause min.	(T4)	140 ms	140 ms
Pause max.	(T5)	260 ms	260 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		

Dial Tone Receiver (DTR)			
		SIU SIUCO	V3.1 V3.2
Date:11.5.1999	Spain: LKZ = 5		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

Indication of T1 times for SIU type 1 / SIUCO

*Spain*

## 7.34 Sweden

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 17/5/1994		Sweden (Schweiz): LKZ = U				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	-				
2	Ext. Dial	9	425	1,2	Continuous	-6,5
3	Special Dial	6	425		<u>320/20</u>	-6,5
4	Ring	2	425		<u>1000/5000</u>	-6,5
5	Busy	3	425		<u>240/260</u>	-6,5
6	Override	4	1400		<u>100/1500</u>	-26,5
7	Camp On	-				
8	Number Unobtain- able	11	950/1400/ 1800		<u>340/340/340/1000</u>	-6,5
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Congestion	-				
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	5	425		<u>260/740</u>	-6,5
15	-	-				
23	Conference Aux. 2	1			Continuous	-26,5
24	Conference Aux.	0	425		Continuous	-26,5
25	-	-				
26	LCR Tone	12	1800		<u>340/200/340/200/340/</u> 1000	-3

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 17/05/1994			Sweden: LKZ = U				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	200	Conf. Aux.	200	Conf. Aux.	100	Conf. Aux.
300	Pause	500	Pause	500	Pause	100	Pause
200	Conf. Aux.	200	Conf. Aux.	200	Conf. Aux.	Cont.	Override
Cont.	Quiet	Cont.	Quiet	Cont.	Quiet	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Sweden (Switzerland): LKZ = 2	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	340 ms	340 ms
Pulse min.	(T2)	160 ms	160 ms
Pulse max.	(T3)	310 ms	310 ms
Pause min.	(T4)	160 ms	160 ms
Pause max.	(T5)	320 ms	320 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Sweden (Switzerland): LKZ = 2		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Sweden*



## 7.35 Switzerland

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 22/04/1994			Switzerland: LKZ = 2			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	7	0			
1	Int. Dial	9	425	1,2	Continuous	-1
2	Ext. Dial					
3	Special Dial	8	425/425 + 340		<u>1100</u> /1100	-2,9*
4	Ring	2	425		<u>1000</u> /4000	-6
5	Busy	3	425		<u>500</u> /500	-6
6	Override	4	1400		<u>200</u> /2000	-13,5
7	Camp On	5	425		<u>200</u> /200/ <u>200</u> /4000	-13,5
8	Number Unobtain- able	11	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-6
9	Data Call	6	1300		<u>600</u> /1800	-1
10	Pos. Acknowledge	-				
11	Congestion	10	425		<u>200</u> /200	-6
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15		-				
23	Conference Aux. 2	1	1400		Continuous	-13,5
24	Conference Aux.	0	425		Continuous	-13,5
25	-	-				
26	LCR Tone					

\*: Einzel Pegel!

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 30/03/1993			Switzerland: LKZ = 2				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
2000	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
			SIUCO V3.3+
Date: 13/09/1990		Switzerland: LKZ = 2	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	340 ms	340 ms
Pulse min.	(T2)	160 ms	160 ms
Pulse max.	(T3)	310 ms	310 ms
Pause min.	(T4)	160 ms	160 ms
Pause max.	(T5)	320 ms	320 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Switzerland: LKZ = 2		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Switzerland*

## 7.36 Thailand

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 6/7/1994		Thailand: LKZ = 0				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	9	350 + 440		Continuous	-10
2	Ext. Dial	11	440 + 450		Continuous	-10
3	Special Dial	3	350		Continuous	-10
4	Ring Back	2	400		<u>1000/3000</u>	-8
5	Busy	10	480 + 620		<u>500/500</u>	-8
6	Override	4	440		<u>200/200/200/4000</u>	-16
7	Camp On	6	440		<u>200/30000</u>	-16
8	Number Unobtainable	5	400		<u>100/100/100/100/100/</u> <u>100/300/100</u>	-10
9	Data Call	-				
10	Pos. Acknowledge	1	440		Continuous	-10
11	Congestion	-				
12	Conference Special Dial After Hookflash	8	350 + 440		<u>120/120</u>	-10
13	Ext. Dial 2 (simulated)	-				
14	Neg. Acknowledge	-				
15	First Ring Back	0	400		Continuous	-8
23	-	-				
24	Conference Aux.	7	440		Continuous	-16
25	-	-				
26	LCR Tone		1800		<u>340/200/340/200/340/</u> <u>1000</u>	

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 06/07/1994				Thailand: LKZ = 0			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
1000	Conf. Aux.	200	Conf. Aux.	200	Conf. Aux.	200	Conf. Aux.
Cont.	Quiet	Cont.	Camp On	Cont.	Camp On	Cont.	Override
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990		Thailand (South Afrika): LKZ = 6	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		5	5
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	650 ms	650 ms
Pulse min.	(T2)	220 ms	220 ms
Pulse max.	(T3)	530 ms	530 ms
Pause min.	(T4)	220 ms	220 ms
Pause max.	(T5)	530 ms	530 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 13/09/1990	Thailand (South Afrika): LKZ = 6		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Thailand*



## 7.37 Turkey

Tone Table						
						SIUX V3.4
Version: 9.4.1997		Turkey: LKZ = 17				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Internal Dial	0	450	1,2	Continuous	-10
2	Second Dial	10	350 + 450		Continuous	-10
3	Special Dial	6	450		<u>1000</u> /260	-10
4	Ring back	2	450		2000/4000	-10
5	Busy	4	450		<u>500</u> /500	-10
6	Override	9	450		<u>100</u> /10000	-15
7	Camp On	8	450		<u>100</u> /100/ <u>100</u> /5000	-15
8	Number Unobtainable	5	450		<u>200</u> /200	-10
9	Toll Break In	3	450		<u>200</u> /200/ <u>600</u> /200	-10
10	Pos. Acknowledge	-	-		-	-
11	Congestion, Overflow	1	450		<u>200</u> /200/ <u>200</u> /200/ <u>200</u> / 200/ <u>600</u> /200	-10
12	Conference	-	-		-	-
13	Special Information	12	950/1400/ 1800		<u>340</u> / <u>340</u> / <u>340</u> /1000	-10
14	Special Confirmation	11	450		<u>40</u> /40	-10
15	Howler	-	-		-	-
23	Test	13	804		Continuous	-4
24	Conference Aux.	7	450		Continuous	-15
25	-	-	-		-	-
26	LCR Tone	14	1800		<u>340</u> /200/ <u>340</u> /200/ <u>340</u> / 1000	-10

Conference Tones							
						SIUX	V3.4
Date: 9.4.1997			Turkey: LKZ = 17				
Conference		Camp On		Night Subscriber camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	100	Conf. Aux.
Cont.	Quiet					1000	Quiet
						Cont.	Override

Dial Tone Receiver (DTR)			
Datw: 9.4.1997		Turkey: LKZ = 17	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		4	4
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	800	800
Pulse min.	(T2)	150	150
Pulse max.	(T3)	700	700
Pause min.	(T4)	150	150
Pause max.	(T5)	700	700

## 7.38 Hungary

Tone Table						
						SIU SIUCO
						V3.3+ V3.3+
Date: 15/11/1994			Hungary: LKZ = 10			
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	-				
2	Ext. Dial	0	425	1,2	Continuous	-3
3	Special Dial	8	425 + 400		Continuous	-8
4	Ring	1	425		<u>1240/3760</u>	-3
5	Busy	2	425		<u>300/300</u>	-3
6	Override	3	425		<u>300/300/300/1500</u>	-11
7	Camp On = Confer- ence	4	425		<u>40/1960</u>	-11
8	Number Unobtain- able = Hinweiston (SIT)	5	950/1400/ 1800		<u>340/340/340/1000</u>	-3
9	Data Call	-				
10	Pos. Acknowledge	-				
11	Warteton	6	425		<u>120/120/120/500</u>	-3
12	Conference	-				
13	Ext. Dial 2 (simulat- ed)	-				
14	Neg. Acknowledge	-				
15	Test	7	900		Cont.	-4,5
23	Alarm	10	1000		Cont.	+0,66
24	Conference Aux.	9	425		Cont.	-11
25	-	-				
26	LCR Tone	-	1800		<u>340/200/340/200/340/</u> 1000	

## Hungary

Testton geht nicht über SLMA, sondern über Satz (Relativpegel DA = -1 dBr bei Anlogsatz, 0 dBr bei Digitalsatz).

Forderung ist -5 dBm +/- 0,5 dB.

Conference Tones							
						SIUCO SCC	V3.3+ V3.3
Date: 15/11/1994			Hungary: LKZ = 10				
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
40	Conf. Aux.	40	Conf. Aux.	40	Conf. Aux.	300	Conf. Aux.
40	Pause	40	Pause	40	Pause	300	Pause
Cont.	Camp On	Cont.	Camp On	Cont.	Camp On	Cont.	Override
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
			SIUCO
			V3.3+
Date: 15/11/1994		Hungary: LKZ = 10	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	500 ms	500 ms
Pulse min.	(T2)	240 ms	240 ms
Pulse max.	(T3)	360 ms	360 ms
Pause min.	(T4)	240 ms	240 ms
Pause max.	(T5)	360 ms	360 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 15/11/1994	Hungary: LKZ = 10		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*Hungary*

## 7.39 USA

Tone Table						
						SIU SIUCO
						V3.1 V3.2
Date: 21/09/1993		USA (Only $\mu$ -Law): LKZ = K				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Test	0	1004		Continuous	-14
1	Dial, Recall Dial	10	350 + 440		Continuous	-11
2	LDN Call Ident.	1	480		Continuous	-13
3	Special Dial	5	350 + 440		<u>400</u> /100	-11
4	Called Party	2	2100		Continuous	-10
5	Busy	7	480 + 620		<u>500</u> /500	-21
6	Busy Override In- jection Override	3	440		<u>260</u> /14000	-24
7	Camp On	9	480 + 620		Continuous	-21
8	Audible Ring	6	440 + 480		<u>1000</u> / <u>3000</u>	-16
9	Reorder	8	480 + 620		<u>240</u> /260	-21
10	Operator Call Iden- tification	4	440	1,2	Continuous	-13
11	Message Waiting Dial Tone	11 12	350 + 440		<u>1240</u> /260	-11
12	Busy Override In- jection Aux. Tone	12 11	440		Continuous	-24
13	Special Audible Ring	13	440+480 / 440 / 0		<u>1000</u> / <u>200</u> /3000	-13/- 16
14	Intercept	14	440 / 620 / 0		<u>240</u> / <u>240</u> /0	-17
15	Quiet Idle Channel Code	-	0		Continuous	---
23	-	-				
24	-	-				
25	-	-				
26	LCR Tone	-	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> / 1000	

LCR tone is not yet contained in code

Conference Tones							
						SIUCO SCC	V3.2 V3.3
Date: 27/08/1993				USA: LKZ = K			
Conference		Camp On		Night Camp On		Override	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
500	Busy Override Inj. Aux.	-	-	-	-	500	Busy Override Inj. Aux.
Cont.	Idle	-	-	-	-	6000	Pause
-	-	-	-	-	-	Cont.	Busy Override Inj.
-	-	-	-	-	-	-	-

**Note**

File PZJSTONK is not suitable for SIU type 1, but for SIU type 4 (USA).  
File PZJETONK is used for a special USA-SIUCO, or for SIUX, SIUCX.

Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 25/07/1991		USA: LKZ = K	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		2	2
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	650 ms	650 ms
Pulse min.	(T2)	240 ms	240 ms
Pulse max.	(T3)	520 ms	520 ms
Pause min.	(T4)	240 ms	240 ms
Pause max.	(T5)	520 ms	520 ms
<b>Times type 2</b> (internal dial tone / busy tone)			



Dial Tone Receiver (DTR)			
		SIUCO	V3.3+
Date: 25/07/1991	USA: LKZ = K		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		
Disconnect time	(T6)		

*USA*

## 7.40 Vietnam

Tone table						
						SIUCO E2.0
Date: 20.5.1999		Vietnam: LKZ = 19				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle channel	-	0			
1	Int. Dial	0	425		Continuous	-10
2	Ext. Dial	-		1		
3	Special Dial	8	400 + 425		Continuous	-10
4	Ring back	2	425		<u>1000</u> /4000	-10
5	Busy	3	425		<u>500</u> /500	-10
6	Intrusion	4	425		<u>200</u> /300/ <u>200</u> /1300	-15
7	Call waiting	5	425		<u>400</u> /9000	-15
8	Number Unobtainable	11	950/1400/1800		<u>320</u> / <u>320</u> / <u>320</u> /1000	-10
9	Data call	-				
10	Recorder warning	1	1400		<u>400</u> /15000	-15
11	Congestion	6	425		<u>200</u> / <u>200</u> / <u>200</u> / <u>200</u> / <u>200</u> /1000	-10
12	-	-				
13	Ext. Dial 2	-				
14	-	-				
15	-	-				
23	-	-				
24	Conference Aux.	9	425	2	Continuous	-15
25		-				
26	LCR tone	7	1800		<u>340</u> / <u>200</u> / <u>340</u> / <u>200</u> / <u>340</u> /1000	-10

Conference Tones							
						SIUX	E2.0
Date: 20.5.1999			Vietnam: LKZ = 19				
Conference		Camp on		Night Camp On		Intrusion	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
200	Conf. Aux.	Cont.	Camp On	Cont.	Camp On	Cont.	Override
300	Pause	-	-	-	-	-	-
200	Conf. Aux.	-	-	-	-	-	-
Cont.	Quiet	-	-	-	-	-	-



**Note:**

The receiver table used for Vietnam is the same as for China: PZJERECC  
MFV / DTMF level as for BRD (FRG): -7.2 / -5.2 dBm0 (sum +0.8 dBm0)

## 7.41 Yugoslavia

Tone table						
						SIUX V3.5
Date: 5.8.1998		Yugoslavia: LKZ = 29				
TSL	Tone	TOG	Frequency Hz	RTO	Timing pulse / pause in ms	Level dBm0
0	Idle Channel	-	0			
1	Int. Dial	8	425	1,2	Dauer	-3
2	Ext. Dial	9	425		<u>200/300/700/800</u>	-3
3	Waiting (Warning back)	3	425		<u>100/5000</u>	-3
4	Ring back	10	425		<u>1000/4000</u>	-3
5	Busy	0	425		<u>500/500</u>	-3
6	Intrusion	1	425		<u>200/800</u>	-7
7	Warning = Camp On (Call waiting)	2	425		<u>200/5000</u>	-7
8	Number Unobtainable	11	950/1400/1800		<u>340/340/340/1000</u>	-3
9	Special Dial TOne	12	425 / 425 + 340		<u>1000</u> / 1000	-3 <sup>1</sup>
10	Pos. Quitt.-Ton	5	425		<u>500/1000</u>	-3
11	Congestion	6	425		<u>200/200</u>	-3
12	Conference	-				
13	Checking Tone	-				
14	Neg. Quitt.-Ton	-				
15	-	-				
23	Alarmton	-				
24	Conference Aux. Tone	4	425		Dauer	-7
25	-	-				
26	LCR-Ton	12	1800		<u>340/200/340/200/340/1000</u>	-3

1 Special Dial Tone Pegel = - 3 dBm0 pro Frequenz, Summenpegel = 0 dBm0

Conference Tones							
						SIUX	V3.5
Date: 27.7.1998			Yugoslavia (YUG = Serbien): LKZ = 29				
Conference Tone		Camp On		Night Camp On		Intrusion	
Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone	Time (ms)	Tone
500	Conf. Aux	Dauer	Camp On	Dauer	Camp On	Dauer	Intrusion
Dauer	Ruhe	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Dial Tone Receiver (DTR)			
		SIUX	V3.5
Date: 27.7.1998		Yugoslavia (YUG = Serbien): LKZ = K	
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Mode (filter selection)		1	1
Type (time evaluation)		1	1
<b>Times type 1</b> (continuous tone / busy tone)			
Continuous tone min.	(T1)	600 ms	600 ms
Pulse min.	(T2)	400 ms	400 ms
Pulse max.	(T3)	590 ms	590 ms
Pause min.	(T4)	400 ms	400 ms
Pause max.	(T5)	600 ms	600 ms
<b>Times type 2</b> (internal dial tone / busy tone)			
Long pause	(T1)		
Pulse max. + pause max.	(T2)		
<b>Times type 3</b> (2nd AWT Belgium, measurement pulse - pause - pulse)			
Pulse max. + pause max.	(T1)		
Pulse min.	(T2)		
Pause min.	(T3)		
Pulse max. - pulse min.	(T4)		
Pause max. - pause min.	(T5)		

Dial Tone Receiver (DTR)			
		SIUX	V3.5
Date: 27.7.1998	Yugoslavia (YUG = Serbien): LKZ = K		
		1st DTR and 2nd DTR	3rd DTR and 4th DTR
Disconnect time	(T6)		

*Yugoslavia*



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