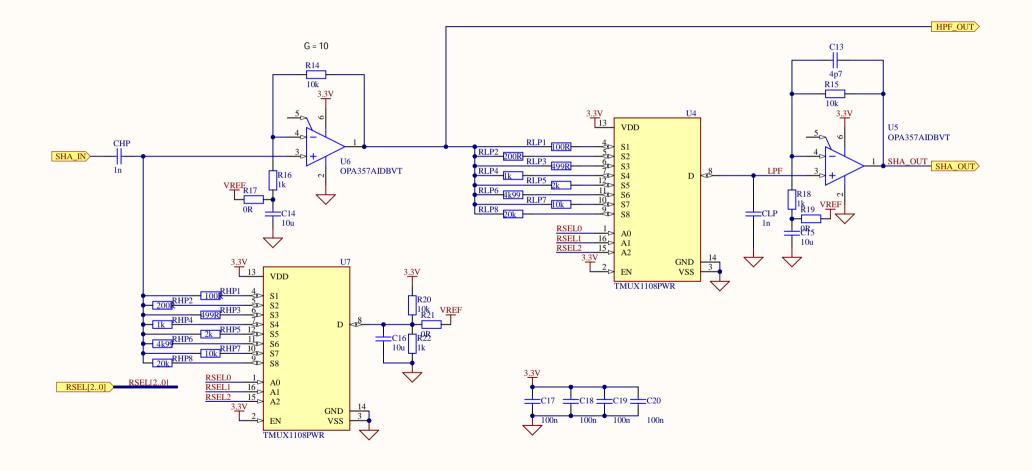
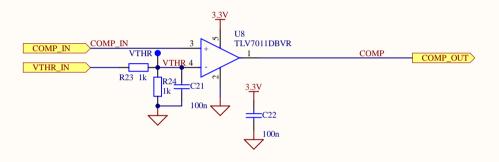


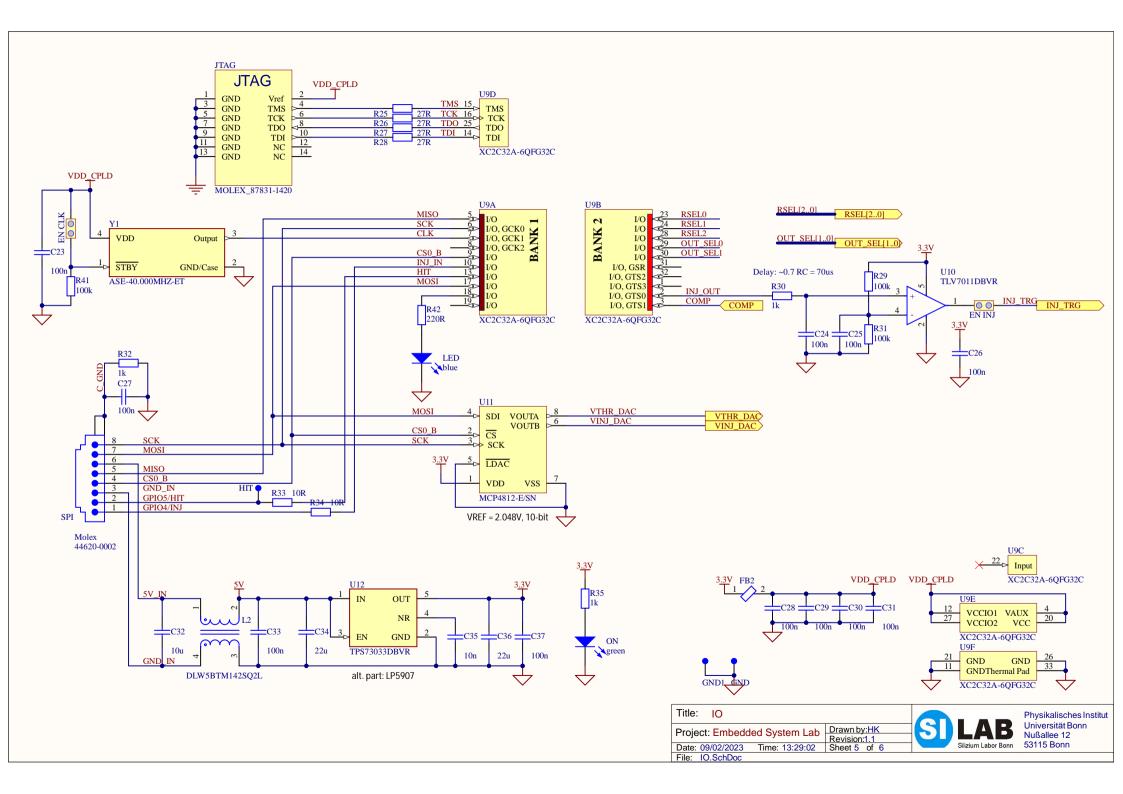
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Project: Embedded System Lab	Drawn by:HK Revision:1.1	2	LAB	Universität Bonn Nußallee 12
Date: 09/02/2023 Time: 13:29:02	Sheet 2 of 6		Silizium Labor Bonn	53115 Bonn
File: CSA.SchDoc				

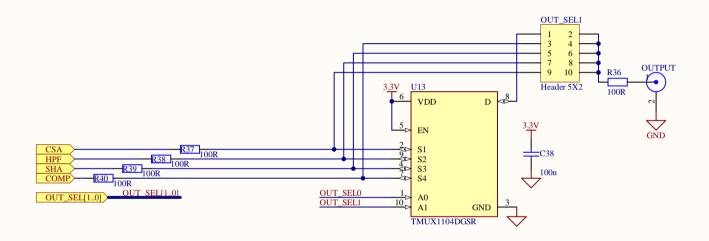


Title:	Shaper				Physikalisches Institut		
Project	: Embedded System Lab	Drawn by:HK Revision:1.1	21	LAB	Universität Bonn Nußallee 12		
Date: 09	9/02/2023 Time: 13:29:02	Sheet 3 of 6		Silizium Labor Bonn	53115 Bonn		
File: SI	HA SchDoc						



Title: Comparator				Physikalisches Institut
Project: Embedded System Lab	Drawn by:HK Revision:1.1	21	LAB	Universität Bonn Nußallee 12
Date: 09/02/2023 Time: 13:29:02	Sheet 4 of 6		Silizium Labor Bonn	53115 Bonn
File: COMP.SchDoc				



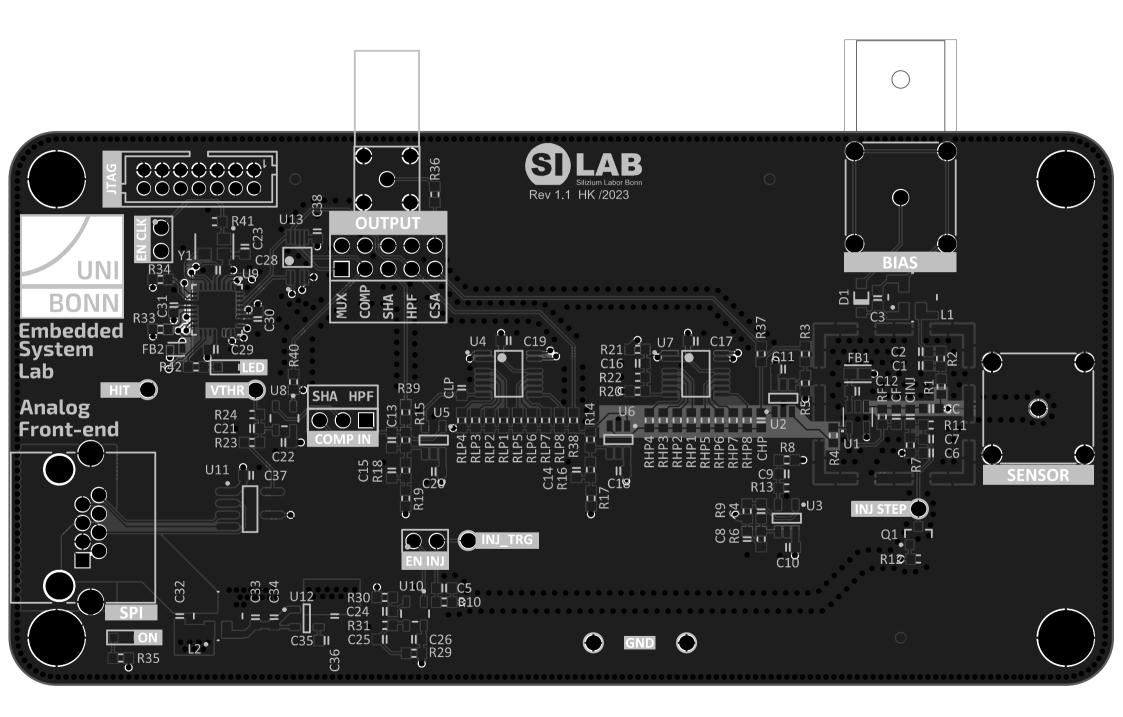


Title: Output

Project: Embedded System Lab
Revision:Rev
Date: 09/02/2023 Time: 13:29:02 Sheet 6 of 6

File: Output.SchDoc

Physikalisches Institut Universität Bonn Nußallee 12 53115 Bonn
Silizium Labor Bonn
Vigallee 12 53115 Bonn



	Auto	Jumper,	on myself.Of	ewitteen ID		ANNATOR MEET	owinity.		www.atacturer.yart.Number 1	matracurer Lifecycle 1	my'grier i	Supplier Part Number 1	Supplier Unit Price 1	Auppeer Subtotal
		Jumper, Solderbridge 1x2	EN CLK, EN INJ		Not managed		2	L			L			L
		Jumper, Solderbridge	COMPIN		Not managed		,							
-		TK2		\vdash										
		Buchse, aufrecht ed.	OUTPUT	1	Not managed		1							
_		gowinkelt		\vdash										
		Modular Jack, Right Angle RI- 45, Low Profile, Inverted, with all Panel Crounding Tabs, Shielded with RI-11 Evernet		1										
		45, Low Profile,		1										
		Inverted, with all Panel	SPI	1	Not managed		,							
		Grounding		1										
		withRJ-11		1										
_		feature		\vdash										
		Solderpad,	END, GND1, HET, INJSTEP,		Not managed									
ľ		Einzelner Kontakt	GND, GND1, HIT, INUSTEP, INU_TEG, VTHR		non managed									
\Box		Fast Switching Diode, 100 V, 0.15 A, -65 to												
	1N4140W-7-F	0.15 A, -65 to			Unknown server			Dieden	3N4348W-7-F	Volume Production				
ľ	intrant-21	150 degC, 2- Pin7500123, R			CONTRACTOR OF THE PARTY OF THE			L. Con		VOIDIN PIODEORI				
		oNS, Tape and Reel												
	50V	Capacitor	a		Not managed Not managed		- 1							
	71K201-400A5	Capacitor 75R BNC Right Angle Jack, Up to 4 CHz, -65 to 165 degC XTAL	BIAS	1	Unknown server			Rosenberger	71K201-400A5	Volume Production				
ľ	7,000,000,0	to 4 CHz, -65 to 165 depC	and .	1	CONTRACTOR OF THE PARTY OF THE				11001-0000	VOIDIN PIODEORI				
П		STAL Oscillator												
ı.	ASE-40.000M/HZ-ET	40MHz ±100ppm	m	1	Unknown server									
ľ	AL-GUMBEL!	CMC5 3.3V 4		1	CONTRACTOR OF THE PARTY OF THE									
		SMD 1.2mm x 2.5mm General		$\overline{}$										
		General Purpose		1										
	BCB468LT1G	Tramistor, NPN Silicon, 3-	a1	1	Unknown server		,							
ľ		General Purpose Translator, NPN Silicon, 3- Pin SOT-23, Pb- Free, Tape and Reel					1		1		l			1
_		Reel		_	-						<u> </u>			
J		ChipFerrite Seed ONCO			1									1
	BLM18PG121SN1D	1200 (F 100MHz, 0.050, 25%, 2A	FB1, FB2		Unknown server		2		1		l			1
		0050, 25%, 2A	L				L	L			L			<u> </u>
\exists		SMD mono- color Chip LED, WL-SMCW,						L						
t	blue, green	WL-SMCW,	LED, ON		Unknown server		2	Wurth Electronics	150060C575000	Volume Production	l			1
_	CCO	Capacitor	C13		Not managed		-							
-	CGO DLWSBTM1425Q2L	Lapacifor	ur, CINI L1		Not managed Not managed		1							
T		Common Mode Choke,												l
	DLWSBTM1425Q2L	Mode Choke, 2020, 14000 69 100MHz,	12		Unknown server		1	Marata	DUWSB1M1425Q2L	Volume Production	l			1
_		0.0560, 1.5A Header, 5-Pin, Dual row		—					_		<u> </u>			
_	Header 5X2	Dual row	OUT_SEL1	-	Not managed		1				<u> </u>			—
	LTC8268-10	Description	un		Not managed		,		1		l			1
\dashv		Available 12-Bit DACs with Internal			 	—	-		-		 			
J					1				1		l			1
,	MCP4812-E/SN	Interface, 8- Pin SOIC 150mil, Extended	um		Unknown server		,	Mcrochip	MCP4822-E/SN	Volume Production	l			1
		150mil.		1										
		Extended Temperature		$\overline{}$										
	MOLEX_87831-1420	Temperature Molex E7831- 1420: 14Pin: Jmm Pitch:	ITAG		Not managed		,							
\rightarrow		2mm Pitch:		-							-			-
		250 MHz, Rail- to-Rail I/O,												
		Single CMOS Operational Amplifier with												
		Amplifier with		1										
		Shutdown, 2.5 to 5.5 V, -40 to		1										
		125 degC, 6- pin SO123												
	OPASSAIDBVT, OPASVAIDBVT	Amplifler with Shutdown, 2.5 to 5.5 V, -40 to 125 degC, 6- pin 50723 (DBVs), Green (RoHS & no 50/Br), Single, low-offset (3.06 mV), low-	LD, LD, US, US		Unknown server			Tesan Imbrumento	OPA353AIDBVT	Volume Production				
ľ	UF KUNIKUWYI	Sb/Br), Single,												
		low-offset (2.06 mV), low-												
		noise, low him current												
		cont												
J		hoise, low bias current, cost optimized, 8990, e-trim~ op amp			1				1		l			1
_		op amp		\vdash					ļ		<u> </u>			
	R	SMDChip Resistor SMDChip Resistor	R1, RF	\vdash	Not managed		2							
	R	aveu-chip Resistor	82		Not managed		1							
Ţ		SMDChip Resistor	R3, R14, R15, R20, RHP7,		Not managed									
⋰			RLP7 R4, R36, R37, R38, R39, R40,	\vdash			<u> </u>	\vdash			├			—
	R	SMD Chip Resistor	R30, R29, R40,		Not managed				1		1			1
\dashv		Ė	RS, RS, R7,	$\overline{}$										
Į.		SMDChip Resistor	R10, R11, R12,		L									
	1	Resistor												
_			R23, R24, R30, R32, R35	1	Not managed		36							
	in .	SWICE-	20:P1, RLP1 RS, RS, R7, R10, R11, R12, R16, R18, R22, R23, R24, R30, R32, R35, R0P4, RLP4				16							
	•	SMD Chip Resistor	R23, R24, R30, R22, R25, R32, R25, R32, R25, R39P4, R2P4		Not managed		16							
_	R	Resistor SMDChip	20 20		Not managed Not managed		16							
	R R	Resistor SMDChip Resistor SMDChip	RS R29, R21, R29, R31,		Not managed Not managed		1 1							
	R R	Resistor SWDChip Resistor SWDChip Resistor SWDChip	89 89 813, 829, 821, 841		Not managed Not managed Not managed		1 1 4							
	R R R	Resistor SMD Chip Resistor SMD Chip Resistor SMD Chip Resistor SMD Chip	85 89 829, 821, 841 829, 821, 841 827, 829, 821		Not managed Not managed Not managed Not managed		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
-	R R R	Resistor SMD Chip Besistor SMD Chip Besistor SMD Chip Besistor SMD Chip Besistor SMD Chip Besistor SMD Chip	29 29 213, 829, 831, 841 217, 819, 821 825, 826, 827, 828		Not managed Not managed Not managed Not managed Not managed		10 1 1 4 3							
1	R R R R	Resistor SMD Chip Resistor SMD Chip Resistor SMD Chip Resistor SMD Chip	89 R. SEN 89 813, 829, 821, 841 817, 819, 821 825, 826, 827, 828 833, 834		Not managed Not managed Not managed Not managed Not managed Not managed		16 1 1 4 3 4 2							
5 5 5	R R R R	Beninter SMD-Chip	89 REN 89 813, 829, 821, 841 817, 819, 821 825, 826, 827, 828 833, 834		Not managed		15 1 1 4 3 4 2							
5 5 5	R R R R R	Resistor SMDChip Besistor	29 R13, R29, R21, R61 R13, R29, R21, R61 R17, R19, R21 R25, R26, R27, R28 R33, R34 R62 R692, R652		Not managed		16 1 1 4 3 4 2 1							
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	R R R R R R R R R R R R R R R R R R R	Resistor SMDChip Resistor	2594, SEN 25 27, 279, 221, 241, 279, 221, 241, 279, 221, 225, 226, 227, 228 231, 234 242 257, 267 258 257, 267 258 257, 267 258 257, 267 258 258 258 258 258 258 258 258 258 258		Not managed		16 1 1 4 3 4 4 2 1 1							
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	E E E E E E E E	Resistor SMDChip Besistor	287 (27) 29 21, 279, 211, 217, 219, 221, 225, 226, 227, 228 211, 214 247, 249 247, 247 247, 247 247 247 247 247 247 247 247 247 247		Not managed		10 11 13 33 44 22 11 22 22 22							
		Resistor SMDChip Resistor	2594, SEN 25 27, 279, 221, 241, 279, 221, 241, 279, 221, 225, 226, 227, 228 231, 234 242 257, 267 258 257, 267 258 257, 267 258 257, 267 258 258 258 258 258 258 258 258 258 258		Not managed		16 1 1 4 2 2 1 2 2 2 2							
	E E E E E E E E E E E E E E E E E E E	Brishter SMDChip Brishter	201 (27) (27) (27) (27) (27) (27) (27) (27)		Not managed		16 1 1 4 2 2 2 2 2 2 2 2							
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	R R R R R R R R R R R R R R R R R R R	Brishler SWDChip Brishler	20 1 27 21 27 21 27 21 27 21 27 21 27 27 27 27 27 27 27 27 27 27 27 27 27		Not managed		16 1 1 4 3 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	R R R R R R R R R R R R R R R R R R R	Brishler SWDChip Brishler	201 (27) (27) (27) (27) (27) (27) (27) (27)		Not managed		16 11 14 33 44 22 22 22 22 23 23 24 24 25 26 27 27 28 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	Tean instruments	TUYOTICEVE					
5 S S S S S S S S S S S S S S S S S S S		Braislater SWIDChip SWIDCHIP BRAISLATER SWIDCHIP BRAISLATER BRAISLATER SWIDCHIP BRAISLATER BRAISLATE	29 21, 227, 221, 227, 221, 227, 221, 227, 222, 222		Not managed		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tean Instrument	TUVOTTERVE					
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	R R R R R R R R R R R R R R R R R R R	Braislater SWIDChip SWIDCHIP BRAISLATER SWIDCHIP BRAISLATER BRAISLATER SWIDCHIP BRAISLATER BRAISLATE	20 1 27 21 27 21 27 21 27 21 27 21 27 27 27 27 27 27 27 27 27 27 27 27 27		Not managed		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Teen instruments	N.VOSTIDOWR					
		Besister SWICHING SWICHI	29 21, 227, 221, 227, 221, 227, 221, 227, 222, 222		Not managed		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tessa linsk umenik	EVZYTTEGEV E					
	TMUKT104DKSR TMUKT108PWR	Besister SWICHING SWICHI	201 (201 (201 (201 (201 (201 (201 (201 (Not managed Not m		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR					
	TMUK1104DGSR	Breisher SWIDChip SWIDC	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Not managed Not m		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Volume Production				
	TMUKT104DKSR TMUKT108PWR	Breisher SWIDChip SWIDC	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Not managed Not m		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Volume Production				
	TMUXTIONDCSR TMUXTIONFWR TPST303300WR	Breisher SWIDChip SWIDC	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Soft managed So		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Volume Production				
	TMUKT104DKSR TMUKT108PWR	Breisher SWIDChip SWIDC	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Not managed Not m		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Tulant Profuction				
	TMUXTIONDCSR TMUXTIONFWR TPST303300WR	Breisher SWIDChip SWIDC	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Soft managed Not managed Soft managed Sof		16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Volume Production				
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	TMUXTIONDCSR TMUXTIONFWR TPST303300WR	Southern Common Southern Commo	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Stat managed Not m		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Volante Production				
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2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TMARTITUDGSR TMARTITUDGSWR TMARTITUDGSWR TPST/203300WR XXR	Southern Control of the Control of t	500 EM S S S S S S S S S S S S S S S S S S		But managed Start ma		10 10 10 10 10 10 10 10 10 10 10 10 10 1	Tesas Imitruments	TMUX 1100PWR	Volume Production				
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TMAX1104DCSR TMAX1106PWR TPST323306WR XXR XXR XXR XXR	Southern Conference on Confere	500 EM ST 500 ST		But managed but the but th		10 11 11 12 12 12 12 12 12 12 12 12 12 12	Tesas Imitruments	TMUX 1100PWR	Wakes Profestion				
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TMAX1104DCSR TMAX1106PWR TPST323306WR XXR XXR XXR XXR	Decided Programme Companies Companie	500 EM ST 500 ST		But managed Start ma		10 10 10 10 10 10 10 10 10 10 10 10 10 1	Tesas Imitruments	TMUX 1100PWR	Volume Production				
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAINTHOGOR MAINTHOGOR PST2000098 220 230 230 230 230 230 230 23	Decided Programme Companies Companie	1904 (EP) 191 (EP) 19		Seat managed Seat		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Wakes Profestion				
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3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MAINTHOGOR MAINTHOGOR PST2000098 220 230 230 230 230 230 230 23	Description 200 Cologo 200 Colog	1904 (EP) 191 (191 (191 (191 (191 (191 (191 (191		Seat managed Seat		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tesas Imitruments	TMUX 1100PWR	Wakes Profestion				
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