SIM800F_SIM900_ATC_Comparison_V1.00

Revision Note

FAQ

Application Note

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Date	Version	Description of change	Author
2015-09-12	1.00	create	Laiwenjie

SCOPE

This document describes difference of AT commands between SIM800F and SIM900.

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1   Introduction

This document describes the important points that should be taken into account in client's application design. As SIM800F can be integrated with a wide range of applications, the application notes are described in great detail.

This document can help you quickly understand SIM800F interface specifications, electrical and mechanical details. With the help of this document and other SIM800F application notes, user guide, you can use SIM800F module to design and set-up mobile applications quickly.

2 Difference

There are some important performances of SIM800F that are obviously different from SIM900 module. These differences are described and listed as in the following table.

Function	Description

2.1 AT Commands According to V.25TER

2.1.1 +++

SIM800F	SIM900
+++ OK **To prevent the +++ escape sequence from being misinterpreted as data, it should comply to following sequence:** **No characters entered for T1 time (1 second)** **"+++" characters entered with no characters in between (1 second)** **No characters entered for T1 timer (1 second)** **Switch to Command mode, otherwise go to step 1**	+++ OK **To prevent the +++ escape sequence from being misinterpreted as data, it should comply to following sequence:** **No characters entered for T1 time (1 second)** **"+++" characters entered with no characters in between (0.5 second)** **No characters entered for T1 timer (0.5 second)** **Switch to Command mode, otherwise go to step 1**
Difference	**Timer is different.**

2.1.2 ATS6

SIM800F	SIM900
ATS6? **2** **OK**	**ATS6?** **ERROR**
Difference	**SIM900 can not support read command.**

2.1.3 AT&V

SIM800F	SIM900
AT&V DEFAULT PROFILE S0: 0 S3: 13 S4: 10 S5: 8 S6: 2 S7: 60 S8: 2 S10: 15 +CBST: 7,0,1 +CRLP: 61,61,48,6 V: 1 E: 1 Q: 0 X: 4 &C: 1 &D: 1 +CLTS: 0 +CREG: 0 +CGREG: 0 +CMEE: 0 +CIURC: 1 +CFGRI: 0 +CMTE: 0 +CANT: 0,0,10 +STKPCIS: 0 +CMGF: 0 +CNMI: 2,1,0,0,0 +CSCS: "IRA" +VTD: 1 +CALS: 1 +CHF: 0 +CAAS: 1 +CBUZZERRING: 0 +DDET: 0 +MORING: 0 +SVR: 16 +CCPD: 1 +CSNS: 0 +CSGS: 1 +CNETLIGHT: 1 +SLEDS: 64,64,64,800,3000,300 +CSDT: 0 +CSMINS: 0 +EXUNSOL: 0 +FSHEX: 0 +IPR: 0 +IFC: 0,0 +ICF: 3,3 +CSCLK: 0 USER PROFILE	AT&V ACTIVE PROFILE: E1 Q0 V1 X4 &C1 &D1 +IFC= 0,0 +FCLASS0 S00:0 S03:13 S04:10 S05:8 S07:60 S08:2 S10:15 STORED PROFILE 0: E1 Q0 V1 X4 &C1 &D1 +IFC= 0,0 +FCLASS0 S00:0 S03:13 S04:10 S05:8 S07:60 S08:2 S10:15 STORED PROFILE 1: E1 Q0 V1 X4 &C1 &D1 +IFC= 0,0 +FCLASS0 S00:0 S03:13 S04:10 S05:8 S07:60 S08:2 S10:15 OK

S0: 0
S3: 13
S4: 10
S5: 8
S6: 2
S7: 60
S8: 2
S10: 15
+CBST: 7,0,1
+CRLP: 61,61,48,6
V: 1
E: 1
Q: 0
X: 4
&C: 1
&D: 1
+CLTS: 0
+CREG: 0
+CGREG: 0
+CMEE: 0
+CIURC: 1
+CFGRI: 0
+CMTE: 0
+CANT: 0,0,10
+STKPCIS: 0
+CMGF: 0
+CNMI: 2,1,0,0,0
+CSCS: "IRA"
+VTD: 1
+CALS: 1
+CHF: 0
+CAAS: 1
+CBUZZERRING: 0
+DDET: 0
+MORING: 0
+SVR: 16
+CCPD: 1
+CSNS: 0
+CSGS: 1
+CNETLIGHT: 1
+SLEDS: 64,64,64,800,3000,300
+CSDT: 0
+CSMINS: 0
+EXUNSOL: 0
+FSHEX: 0
+IPR: 0
+IFC: 0,0
+ICF: 3,3
+CSCLK: 0

ACTIVE PROFILE
S0: 0
S3: 13
S4: 10
S5: 8
S6: 2
S7: 60

S8: 2
S10: 15
+CBST: 7,0,1
+CRLP: 61,61,48,6
V: 1
E: 1
Q: 0
X: 4
&C: 1
&D: 1
+CLTS: 0
+CREG: 0
+CGREG: 0
+CMEE: 0
+CIURC: 1
+CFGRI: 0
+CMTE: 0
+CANT: 0,0,10
+STKPCIS: 0
+CMGF: 0
+CNMI: 2,1,0,0,0
+CSCS: "IRA"
+VTD: 1
+CALS: 1
+CHF: 0
+CAAS: 1
+CBUZZERRING: 0
+DDET: 0
+MORING: 0
+SVR: 16
+CCPD: 1
+CSNS: 0
+CSGS: 1
+CNETLIGHT: 1
+SLEDS: 64,64,64,800,3000,300
+CSDT: 0
+CSMINS: 0
+EXUNSOL: 0
+FSHEX: 0
+IPR: 0
+IFC: 0,0
+ICF: 3,3
+CSCLK: 0

OK

Difference	More parameters display in SIM800F, and the order of those parameters are different too.

2.1.4 AT+GCAP

SIM800F	SIM900
AT+GCAP +GCAP: +CGSM	AT+GCAP +GCAP:+FCLASS,+CGSM

OK		OK
Difference	SIM800F only support GSM function.	

2.1.5 AT+IPR

SIM800F	SIM900
AT+IPR=? +IPR: (),(0,1200,2400,4800,9600,19200,38400,57600,115200,230400,460800) OK	AT+IPR=? +IPR: (),(0,1200,2400,4800,9600,19200,38400,57600,115200) OK
Difference	SIM800F can support more baud rate.

2.2 AT Commands According to 3GPP TS 27.007

2.2.1 AT+CACM

SIM800F can not support this command.

2.2.2 AT+CAMM

SIM800F can not support this command.

2.2.3 AT+CAOC

SIM800F can not support this command.

2.2.4 AT+CBST

SIM800F can not support this command.

2.2.5 AT+CCWA

SIM800F	SIM900
AT+CCWA=1,1 OK RING +CCWA: "02132523416",161,1,""	AT+CCWA=1,1 OK RING +CCWA: "02132523416",129,1,""

Difference	**Number of type is different.**

2.2.6 AT+CEER

SIM800F	SIM900
AT+CEER	AT+CEER
+CEER: normal call clearing	+CEER: Normal call clearing
OK	OK
AT+CEER=1	AT+CEER=1
OK	OK
AT+CEER	AT+CEER
+CEER: Cause:16	+CEER: "Cause Select:67 Cause:16"
OK	OK
Difference	**SIM900A has information about CauseSelect: <cs>.**

2.2.7 AT+CHLD

SIM800F	SIM900
AT+CHLD =?	AT+CHLD =?
+CHLD: (0,1,1x,2,2x,3,4)	+CHLD: (0,1,1x,2,2x,3,4,6,6x,7x,8x,9x)
OK	OK
Difference	**SIM800F can not support 6,6x,7x,8x,9x.**

2.2.8 AT+CLCC

SIM800F	SIM900
AT+CLCC=1	AT+CLCC=1
OK	OK
ATD10010;	ATD10086;
OK	OK
+CLCC: 1,0,2,0,0,"10010",129,""	+CLCC: 1,0,3,0,0,"10086",129,"TEST"
+CLCC: 1,0,3,0,0,"10010",129,""	+CLCC: 1,0,0,0,0,"10086",129,"TEST"
+CLCC: 1,0,0,0,0,"10010",129,""	
Difference	**When set AT+CLCC=1 SIM800F support print: "+CLCC: 1,0,2,0,0,"10010",129," "";** **<stat> = 2 status can be print.**

2.2.9 AT+CLCK

SIM800F	SIM900
AT+CLCK=?	AT+CLCK=?
+CLCK: ("AO","OI","OX","AI","IR","FD","SC","PN","PU","PP")	+CLCK: +CLCK: ("AO","OI","OX","AI","IR","AB","AG","AC","FD","SC","PN","PU","PP")
OK	OK
Difference	**SIM900 can support more parameters.**

2.2.10 AT+CLIP

SIM800F	SIM900
AT+CLIP=1	AT+CLIP=1
OK	OK
RING	RING
+CLIP: "02132523416",161,"",0,"",0	+CLIP: "13817825065",161,"",,"",0
Difference	

2.2.11 AT+COLP

SIM800F	SIM900
AT+COLP?	AT+COLP?
+COLP: 0,0	+COLP: 0,1
OK	OK
Difference	**The default value of <m> is different.**

2.2.12 AT+COPS

SIM800F	SIM900
AT+COPS=?	AT+COPS=?
+COPS: (2,"CHN-UNICOM","UNICOM","46001"),(3,"CHINA MOBILE","CMCC","46000"),,(0-4),(0-2)	+COPS: (2,"CHINA MOBILE","CMCC","46000"),(3,"CHN-UNICOM","UNICOM","46001"),,(0,1,4),(0,1,2)
	OK
OK	
Difference	

2.2.13 AT+CRSL

SIM800F	SIM900
AT+CRSL=?	AT+CRSL=?
+CRSL: (0-100)	+CRSL: (0-4)
OK	OK
Difference	**SIM800F can support more level.**

2.2.14 AT+CPBS

SIM800F	SIM900
AT+CPBS=?	AT+CPBS=?
+CPBS: ("SM","ME","ON","FD")	+CPBS: ("MC","RC","DC","LD","LA","ME","SM","FD","ON","BN","SD","VM","EN")
OK	OK
Difference	**SIM800F only support "SM", "ME", "ON" and "FD".**

2.2.15 AT+CPBW

SIM800F	SIM900
AT+CPBW=?	AT+CPBW=?
+CPBW: (1-250),40,(129,145),14	+CPBW: (1-250),40,(129,145,161,177),14
OK	OK
Difference	**SIM800F only support "129"and "145".**

2.2.16 AT+CRLP

SIM800F	SIM900
AT+CRLP=?	AT+CRLP=?
+CRLP: (0-61),(0-61),(44-255),(1-255),7	+CRLP: (0-61),(0-61),(44-255),(1-255),(0),(7)
OK	OK
Difference	**SIM900 can support more parameters.**

2.2.17 AT+CFUN

SIM800F	SIM900
AT+CFUN=?	AT+CFUN=?

+CFUN: (0,1,4),(1)	+CFUN: (0,1,4),(0-1)
OK	OK
Difference	AT+CFUN=1,0 or AT+CFUN=4,0 will return error in SIM800F.	

2.2.18 AT+CALS

SIM800F	SIM900
AT+CALS? +CALS: 1,0	AT+CALS? +CALS: 0
OK	OK
Difference	Default value of Alert sound type is different.	

2.2.19 AT+CLVL

SIM800F	SIM900
AT+CLVL? +CLVL: 33	AT+CLVL? +CLVL: 40
OK	OK
Difference	Default value is different.	

2.2.20 AT+CPUC

SIM800F can not support this command because of platform limited.

2.2.21 AT+CCWE

SIM800F can not support this command because of platform limited.

2.3 AT Commands According to 3GPP TS 27.005

2.3.1 AT+CPMS

SIM800F	SIM900
AT+CPMS=? +CPMS: ("SM","ME","SM_P","ME_P","MT"),("SM","ME","SM_P","ME_P","MT"),("SM","ME","SM_P","ME_P","MT")	AT+CPMS=? +CPMS: ("SM"),("SM"),("SM") OK
OK	
Difference	SIM800F support five modes: "SM","ME","SM_P","ME_P","MT".	

SIM900 only support "SM" mode.	

2.3.2 AT+CSAS

SIM800F	SIM900
AT+CSAS=? +CSAS: (0-3) OK	AT+CSAS=? +CSAS: (0,1) OK
Difference	**SIM800F can support profile 0-3.**

2.3.3 AT+CRES

SIM800F	SIM900
AT+CRES=? +CRES: (0-3) OK	AT+CRES=? +CRES: (0,1) OK
Difference	**SIM800F can support profile 0-3.**

2.3.4 AT+CSCB

SIM800F	SIM900
AT+CSCB=1,"1","0,1" OK	AT+CSCB=1,"1","0,1" ERROR
Difference	

2.4 AT Commands Special for SIMCOM

2.4.1 AT+CALA

SIM800F	SIM900
AT+CALA="11/01/01,00:31:25",1 OK AT+CALA="00:32:35",4,0 OK ALARM RING +CALV: 1 ALARM RING +CALV: 4	AT+CALA="11/01/01,00:31:25",1 OK AT+CALA="00:32:35",4,0 OK +CALV: 1 +CALV: 4
Difference	**SIM800F has alarm ring info but SIM900 has not.**

2.4.2 AT+CALD

SIM800F	SIM900
AT+CALD=1	AT+CALD=1
OK	OK
AT+CALD=4	AT+CALD=4
OK	OK
AT+CALD=2	AT+CALD=2
ERROR	OK
Difference	SIM800F return ERROR if the index has no alarm.

2.4.3 AT+CFGRI

SIM800F	SIM900
AT+CFGRI=?	AT+CFGRI=?
+CFGRI: (0-2)	ERROR
OK	
Difference	SIM900 does not support test command.

2.4.4 AT+CLTS

SIM800F	SIM900
AT+CLTS?	AT+CLTS?
+CLTS: 0	ERROR
OK	
AT+CLTS=1	AT+CLTS=1
OK	OK
*PSUTTZ: 2015,3,10,6,32,31,"+32",0	*PSUTTZ: 2015, 3, 24, 8, 5, 11, "+32", 1
DST: 0	DST: 1
Difference	SIM900 does not support read command.
	The value range of <dst> is different between SIM800F and SIM900.

2.4.5 AT+CLDTMF

SIM800F	SIM900
AT+CLDTMF=?	AT+CLDTMF=?
+CLDTMF:	+CLDTMF:
(1-100),(0-9,A,B,C,D,E,F,*,#),(10-500)	(1-100),(0-9,A,B,C,D,*,#,E,F,G),(40-500),(0,1,2)

OK	OK
Difference	**SIM800F can not generate "G";** **Min value of <timeBase> is different;** **Play mode of SIM800F is controlled by AT+DTAM.**

2.4.6 AT+CBAND

SIM800F	SIM900
AT+CBAND=? +CBAND: (EGSM_MODE,DCS_MODE,GSM850_MO DE,PCS_MODE,EGSM_DCS_MODE,GSM 850_PCS_MODE,EGSM_PCS_MODE,ALL _BAND) OK	AT+CBAND=? +CBAND: (EGSM_MODE,PGSM_MODE,DCS_MODE, EGSM_DCS_MODE,ALL_BAND) OK
Difference	**SIM800F support Quad-band.**

2.4.7 AT+CENG

SIM800F	SIM900
AT+CENG? +CENG: 0,0 OK AT+CENG? +CENG: 1,1 +CENG: 0,''0097,60,00,460,01,30,b5f0,20,05,144f,255'' +CENG: 1,''0000,00,00,0000,,,0000'' +CENG: 2,''0000,00,00,0000,,,0000'' +CENG: 3,''0000,00,00,0000,,,0000'' +CENG: 4,''0000,00,00,0000,,,0000'' +CENG: 5,''0000,00,00,0000,,,0000'' +CENG: 6,''0000,00,00,0000,,,0000'' OK AT+CENG=3,1 OK AT+CENG? +CENG: 3,1	AT+CENG? +CENG: 0,0 OK AT+CENG=1,1 OK AT+CENG? +CENG: 1,1 +CENG:0,''0582,36,99,460,00,53,f4f2,12,00,181 6,9'' +CENG:1,''0025,41,23,f2a1,460,00,1816'' +CENG:2,''0081,36,31,f9a1,460,00,1816'' +CENG:3,''0572,37,43,f2c3,460,00,1816'' +CENG:4,''0565,33,55,f1a1,460,00,1816'' +CENG:5,''0026,26,02,f571,460,00,1816'' +CENG:6,''0568,25,44,f1a2,460,00,1816'' OK AT+CENG=3,1 OK AT+CENG?

+CENG: 0,"460,01,144f,b5f0,30,61"	+CENG: 3,1
+CENG: 1,",,0000,0000,00,00"	
+CENG: 2,",,0000,0000,00,00"	+CENG:0,460,00,1816,f4f2,65,36
+CENG: 3,",,0000,0000,00,00"	+CENG:1,460,00,1816,f2a1,27,41
+CENG: 4,",,0000,0000,00,00"	+CENG:2,460,00,1816,f9a1,37,36
+CENG: 5,",,0000,0000,00,00"	+CENG:3,460,00,1816,f2c3,53,38
+CENG: 6,",,0000,0000,00,00"	+CENG:4,460,00,1816,f1a1,67,33
	+CENG:5,460,00,1816,f1a3,30,31
OK	+CENG:6,460,00,1816,f571,02,26
AT+CENG=2,1	
OK	OK
+CENG:	
0,"0097,61,00,460,01,30,b5f0,20,05,144f,255"	
+CENG: 1,"0000,00,00,0000,,,0000"	
+CENG: 2,"0000,00,00,0000,,,0000"	
+CENG: 3,"0000,00,00,0000,,,0000"	
+CENG: 4,"0000,00,00,0000,,,0000"	
+CENG: 5,"0000,00,00,0000,,,0000"	
+CENG: 6,"0000,00,00,0000,,,0000"	
Difference	**SIM800F can not support <TA> because of platform limited.**

2.4.8 AT+STTONE

SIM800F	SIM900
AT+STTONE=?	AT+STTONE=?
+STTONE: (0-1),(1-8,16-20),(10-15300000)	+STTONE: (0-1),(1-8,16-20),(3-15300000)
OK	OK
Difference	**Min value of <duration> is different.**

2.4.9 AT+SIMTONE

SIM800F	SIM900
AT+SIMTONE=?	AT+SIMTONE=?
+SIMTONE:	+SIMTONE:
(0,1),(20-20000),(200-25500),(0,100-25500),(10-500000)	(0,1),(20-20000),(200-25500),(0,100-25500),(0-500000)
OK	OK
Difference	**Min value of <duration> is different.**

2.4.10 AT+EXUNSOL

SIM800F	SIM900
AT+EXUNSOL=? +EXUNSOL: ("SQ") OK	AT+EXUNSOL=? +EXUNSOL: ("SQ","UR") OK
Difference	SIM900 support "UR" to describes the current call state

2.4.11 AT+ CGMSCLASS

SIM800F	SIM900
AT+CGMSCLASS=? MULTISLOT CLASS: (2,4,8,9,10,12) OK	AT+CGMSCLASS=? MULTISLOT CLASS: (2,4,8,9,10) OK
AT+CGMSCLASS? MULTISLOT CLASS: 12 OK	AT+CGMSCLASS? MULTISLOT CLASS: 10 OK
Difference	SIM800F support GPRS multi-slot class 12.

2.4.12 AT+SPWM

SIM800F	SIM900
AT+SPWM=? +SPWM: (0-2),(0-100000),(0-100) OK	AT+SPWM=? +SPWM: (0-2),(0-126),(0-100) OK
Difference	Range of <freq> is different. SIM800F <freq> is 0-100000, SIM900 <period> is 0-126.

2.4.13 AT+ECHO

SIM800F	SIM900
AT+ECHO=? +ECHO: (0,1),(0-65535),(0-65535),(0-65535),(0-65535),(0,1) OK	AT+ECHO=? +ECHO: MIC:(0,2),ES:(0-8),SES:(0-6),MODE:(0,1) OK
Difference	Parameters are different.

2.4.14 AT*CELLLOCK

SIM800F	SIM900

AT*CELLLOCK=? *CELLLOCK: (0-1)[,(1-3),(0-124;128-251;512-885;975-102 3)[,(0-124;128-251;512-885;975-1023)[,(0-12 4;128-251;512-885;975-1023)]]]] OK	AT*CELLLOCK=? *CELLLOCK: (0-1)[,(0-4),[(0-124;128-251;512-885;975-1023), [(0-124;128-251;512-885;975-1023),[(0-124;128 -251;512-885;975-1023).. OK
Difference	**Up to 3 arfcn supported by SIM800F and up to 4 arfcn supported by SIM900.**

2.4.15 AT+SLEDS

SIM800F	SIM900
AT+SLEDS? +SLEDS: 1,64,800 +SLEDS: 2,64,3000 +SLEDS: 3,64,300 OK	AT+SLEDS? +SLEDS: 1,53,790 +SLEDS: 2,53,2990 +SLEDS: 3,53,287 OK
Difference	**Default value is different.**

2.4.16 AT+CWHITELIST

SIM800F	SIM900
AT+CWHITELIST=? +CWHITELIST: (0-3) OK	AT+CWHITELIST=? +CWHITELIST: (0-1) OK
Difference	**SIM900 only support for call white list. SIM800F support call and SMS white list.**

2.4.17 AT+CSGS

SIM900 can not support this command.

2.4.18 AT+CMICBIAS

SIM900 can not support this command.

2.4.19 AT+DTAM

SIM900 can not support this command.

2.4.20 AT+SJDR

SIM800F		SIM900
AT+SJDR=?		AT+SJDR=?
+SJDR: (0,1)		ERROR
OK		
Difference	SIM900 does not support test command.	

2.4.21 AT+CANT

SIM900 can not support this command.

2.4.22 AT+CAGCSET

SIM900 can not support this command.

2.4.23 AT+SKPD

SIM800F can not support this command.

2.4.24 AT+SIMTONEX

SIM900 can not support this command.

2.4.25 AT+CROAMING

SIM900 can not support this command.

2.4.26 AT+CNETSCAN

SIM900 can not support this command.

2.4.27 AT+CEGPRS

SIM900 can not support this command.

2.4.28 AT+CGPIO

SIM900 can not support this command.

2.4.29 AT+CMEDPLAY

SIM900 can not support this command.

2.4.30 AT+CMEDIAVOL

SIM900 can not support this command.

2.4.31 AT+SNDLEVEL

SIM900 can not support this command.

2.4.32 AT+CMOD

SIM800F can not support this command.

2.5 AT Commands for GPRS Support

2.5.1 AT+CGDCONT

SIM800F	SIM900
AT+CGDCONT? +CGDCONT: 1,"IP","","0.0.0.0",0,0 +CGDCONT: 2,"IP","","0.0.0.0",0,0 +CGDCONT: 3,"IP","","0.0.0.0",0,0 OK	AT+CGDCONT? +CGDCONT: 3,"IP","","0.0.0.0",0,0 OK
Difference	**SIM900 CID=3 reserved.**

2.5.2 AT+CGQMIN

SIM800F	SIM900
AT+CGQMIN? +CGQMIN: 1,0,0,0,0,0 +CGQMIN: 2,0,0,0,0,0 +CGQMIN: 3,0,0,0,0,0	AT+CGQMIN? +CGQMIN: 3,0,0,0,0,0 OK

OK	
Difference	**SIM900 CID=3 reserved.**

2.5.3 AT+CGQREQ

SIM800F	SIM900
AT+CGQREQ? **+CGQREQ: 1,0,0,3,0,0** **+CGQREQ: 2,0,0,3,0,0** **+CGQREQ: 3,0,0,3,0,0** **OK**	**AT+CGQREQ?** **+CGQREQ: 3,0,0,3,0,0** **OK**
Difference	**SIM900 CID=3 reserved.**

2.5.4 AT+CGACT

SIM800F	SIM900
AT+CGACT? **+CGACT: 1,0** **+CGACT: 2,0** **+CGACT: 3,0** **OK**	**AT+CGACT?** **+CGACT: 3,0** **OK**
Difference	**SIM900 CID=3 reserved.**

2.5.5 AT+CGCLASS

SIM800F	SIM900
AT+CGCLASS=? **+CGCLASS: ("B","CG","CC")** **OK**	**AT+CGCLASS=?** **+CGCLASS: ("B","CC")** **OK**
Difference	**SIM800F have 3 class and SIM900 only 2 class.**

2.5.6 AT+CGEREP

SIM800F	SIM900
AT+CGEREP=? **+CGEREP: (0,1)** **OK**	**AT+CGEREP=?** **+CGEREP: (0-2),(0-1)** **OK**

Difference	SIM800F only support the first parameter and only 2 choice.SIM900 support 2 parameters.

2.5.7 AT+CGSMS

SIM800F	SIM900
AT+CGSMS? +CGSMS: 3 OK	AT+CGSMS? +CGSMS: 1 OK
Difference	Default SMS service is 3 (Circuit switched preferred) in SIM800F and SIM900 is 1(Circuit switched).

2.6 AT Commands for SIM Application Toolkit

Please refer to specific use SIM800 Series_STK_Application Note_V1.00.

2.7 AT Commands for TCPIP Application

In multi-connection mode, the max connection number between SIM800F and SIM900 is different. SIM800F support 0-5, SIM900 support 0-7.

2.7.1 AT+CIPSTART

SIM800F	SIM900
AT+CIPMUX=1 OK AT+CIPSTART=? +CIPSTART: (0-5),("TCP","UDP"),("(0-255).(0-255).(0-255).(0-255)"),(1-65535) +CIPSTART: (0-5),("TCP","UDP"),("DOMAIN NAME"),(1-65535) OK	AT+CIPMUX=1 OK AT+CIPSTART=? +CIPSTART: (0-7),("TCP","UDP"),("(0-255).(0-255).(0-255).(0-255)"),(1-65535) +CIPSTART: (0-7),("TCP","UDP"),("DOMAIN NAME"),(1-65535) OK
Difference	The max connection number is different. SIM800F support 0-5, SIM900 support 0-7.

2.7.2 AT+CLPORT

SIM800F	SIM900

AT+CLPORT=?	AT+CLPORT=?
+CLPORT: ("TCP","UDP"),(0-65535)	+CLPORT: (1-65535)
OK	OK
AT+CIPMUX=1	AT+CIPMUX=1
OK	OK
AT+CLPORT=?	AT+CLPORT=?
+CLPORT:	+CLPORT: (1-65535)
(0-5),("TCP","UDP"),(0-65535)	
	OK
OK	
AT+CIPMUX=0	AT+CIPMUX=0
OK	OK
AT+CLPORT?	AT+CLPORT?
+CLPORT: 0,0	TCP: 0
	UDP: 0
OK	
AT+CIPMUX=1	OK
OK	
AT+CLPORT?	AT+CLPORT?
+CLPORT: 0,0,0	
+CLPORT: 1,0,0	+CLPORT: 0,0,0
+CLPORT: 2,0,0	+CLPORT: 1,0,0
+CLPORT: 3,0,0	+CLPORT: 2,0,0
+CLPORT: 4,0,0	+CLPORT: 3,0,0
+CLPORT: 5,0,0	+CLPORT: 4,0,0
	+CLPORT: 5,0,0
OK	+CLPORT: 6,0,0
	+CLPORT: 7,0,0
	OK
Difference	

2.7.3 AT+CIPSTATUS

SIM800F	SIM900
AT+CIPSTATUS=?	AT+CIPSTATUS=?
OK	OK
AT+CIPSTATUS	AT+CIPSTATUS
OK	OK
STATE: IP STATUS	STATE: IP INITIAL

C: 0,,"","","","INITIAL"	C: 0,,"","","","INITIAL"
C: 1,,"","","","INITIAL"	C: 1,,"","","","INITIAL"
C: 2,,"","","","INITIAL"	C: 2,,"","","","INITIAL"
C: 3,,"","","","INITIAL"	C: 3,,"","","","INITIAL"
C: 4,,"","","","INITIAL"	C: 4,,"","","","INITIAL"
C: 5,,"","","","INITIAL"	C: 5,,"","","","INITIAL"
C: 5,,"","","","INITIAL"	C: 6,,"","","","INITIAL"
AT+CIPSTATUS=1	C: 7,,"","","","INITIAL"
+CIPSTATUS: 1,,"","","","INITIAL"	AT+CIPSTATUS=1
	+CIPSTATUS: 1,,"","","","INITIAL"
OK	
	OK
Difference	**The max connection number is different.**

2.7.4 AT+CIPUDPMODE

SIM800F	SIM900
AT+CIPMUX=1	AT+CIPMUX=1
OK	OK
AT+CIPUDPMODE=?	AT+CIPUDPMODE=?
+CIPUDPMODE:	+CIPUDPMODE:
(0-5),(0-2),("(0-255).(0-255).(0-255).(0-255)"),(1-65535)	(0-7),(0-2),("(0-255).(0-255).(0-255).(0-255)"),(1-65535)
OK	OK
AT+CIPUDPMODE?	AT+CIPUDPMODE?
+CIPUDPMODE: 0,0	+CIPUDPMODE: 0,0
+CIPUDPMODE: 1,0	+CIPUDPMODE: 1,0
+CIPUDPMODE: 2,0	+CIPUDPMODE: 2,0
+CIPUDPMODE: 3,0	+CIPUDPMODE: 3,0
+CIPUDPMODE: 4,0	+CIPUDPMODE: 4,0
+CIPUDPMODE: 5,0	+CIPUDPMODE: 5,0
	+CIPUDPMODE: 6,0
OK	+CIPUDPMODE: 7,0
	OK
Difference	**The max connection number is different.**

2.7.5 AT+CIPRXGET

SIM800F	SIM900
AT+CIPMUX=1	AT+CIPMUX=1
OK	OK

AT+CIPRXGET=?	AT+CIPRXGET=?
+CIPRXGET: (0-4),(0-5),(1-1460)	+CIPRXGET: (0-4),(0-7),(1-1460)
OK	OK
Difference	The max connection number is different.

2.7.6 AT+CIPTKA

SIM800F	SIM900
AT+CIPTKA?	AT+CIPTKA?
+CIPTKA: 1,7200,75,9	+CIPTKA: 0,7200,75,9
OK	OK
Difference	SIM800F default keep TCP alive and SIM900 not.

2.8 AT Commands for HTTP Application

2.8.1 AT+HTTPDATA

SIM800F	SIM900
AT+HTTPDATA=?	AT+HTTPDATA=?
+HTTPDATA: (0-319488),(1000-120000)	+HTTPDATA: (0-318976),(1000-120000)
OK	OK
Difference	Parameter range is different.

2.8.2 AT+HTTPREAD

SIM800F	SIM900
AT+HTTPREAD=?	AT+HTTPREAD=?
+HTTPREAD: (0-319488),(1-319488)	+HTTPREAD: (0-318976),(1-318976)
OK	OK
Difference	Parameter range is different.

2.8.3 AT+HTTPCONT

SIM800F	SIM900
AT+HTTPSCONT?	AT+HTTPSCONT?
+HTTPSCONT: 1	+HTTPSCONT: 1

CID: 1	CID: 1
URL: www.baidu.com	URL: www.baidu.com
UA: SIMCOM_MODULE	UA: SIMCOM_MODULE
PROIP: 0.0.0.0	PROIP: 0.0.0.0
PROPORT: 0	PROPORT: 0
REDIR: 0	REDIR: 0
BREAK: 0	BREAK: 0
BREAKEND: 0	BREAKEND: 0
USERDATA:	
	OK
OK	

Difference	SIM800F display USERDATA parameter.

2.8.4 AT+FTPFILEPUT

SIM800F	SIM900
AT+FTPFILEPUT=?	AT+FTPFILEPUT=?
OK	OK
AT+FTPFILEPUT=1,"C:\user\ftp\test.txt"	
OK	
AT+FTPPUT=1	
OK	
+FTPPUT: 1,0	

Difference	SIM900 can not support FS.

2.8.5 AT+FTPSIZE

SIM800F	SIM900
AT+FTPQUIT=?	AT+FTPQUIT=?
OK	OK
AT+FTPSIZE	AT+FTPSIZE
OK	OK
AT+FTPQUIT	AT+FTPQUIT
OK	OK
+FTPSIZE: 1,86,0	+FTPSIZE: 1,80,0

Difference	

2.8.6 AT+FTPGETTOFS

SIM900 can not support this command.

2.8.7 AT+FTPPUTFRMFS

SIM900 can not support this command.

2.9 AT Commands for IP Application

2.9.1 AT+SAPBR

SIM800F	SIM900
AT+SAPBR=? +SAPBR: (0-4),(1-3),"ConParamTag","ConParamValue" OK	AT+SAPBR=? +SAPBR: (0-5),(1-3),"ConParamTag","ConParamValue" OK
	AT+SAPBR=5,1 (Save) OK
Difference	SIM900 support save operation.

2.10 AT Commands for Email Application

2.10.1 AT+SMTPBODY

SIM800F	SIM900
AT+SMTPBODY? +SMTPBODY: "" OK	AT+SMTPBODY? ERROR
AT+SMTPBODY=1 DOWNLOAD OK	AT+SMTPBODY > DDDDD OK
Difference	SIM900 does not support read command.

2.11 AT Commands for SSL Application

2.11.1 AT+EMAILSSL

SIM800F	SIM900
AT+EMAILSSL=?	AT+EMAILSSL=?

+EMAILSSL: (0-2)	+EMAILSSL: (0-1)
OK	OK
AT+EMAILSSL?	AT+EMAILSSL?
+EMAILSSL: 0	+EMAILSSL: 0
OK	OK
Difference	**Parameter is different.**

2.11.2 AT+HTTPSSL

SIM800F	SIM900
AT+HTTPINIT	AT+HTTPSSL=1
OK	OK
AT+HTTPSSL=1	
OK	
Difference	**SIM800F must AT+HTTPINIT before AT+HTTPSSL.**

2.11.3 AT+FTPSSL

SIM900 can not support this command.

2.11.4 AT+CIPSSL

SIM900 can not support this command.

2.11.5 AT+SSLSETCERT

SIM900 can not support this command.

2.11.6 AT+SSLOPT

SIM900 can not support this command.

2.12 AT Commands for DDET Application

2.12.1 AT+DDET

SIM800F	SIM900
AT+DDET?	AT+DDET?
+DDET: 0,0,0,0	+DDET: 0,0

OK	OK
AT+DDET=?	AT+DDET=?
+DDET: (0,1),(0-10000),(0,1),(0,1)	ERROR
OK	
Difference	**SIM800F can support more parameters.**
	SIM900 can not support read command.

2.13 AT Commands for NTP Application

2.13.1 AT+CNTPCID

SIM800F	SIM900
AT+CNTPCID=?	AT+CNTPCID=?
+CNTPCID: (1-3)	OK
	AT+CNTPCID?
OK	+CNTPCID: 1
AT+CNTPCID?	
+CNTPCID: 1	OK
OK	
Difference	**Parameter <cid> of SIM900 is been set by AT+CNTP.**

2.13.2 AT+CNTP

SIM800F	SIM900
AT+CNTP=?	AT+CNTP=?
+CNTP: 64,(-47~48)	OK
	AT+CNTP?
OK	+CNTP: "202.120.2.101:123",8,1,1
AT+CNTP?	
+CNTP: 202.120.2.101,32	OK
OK	
AT+CNTP="202.120.2.101",32	AT+CNTP="202.120.2.101",8,1,1
OK	
AT+CNTP	OK
OK	AT+CNTP
	OK
+CNTP: 1	
	+CNTP: 1,"15/03/13,17:27:15"

Difference	SIM800F only support server URL and time zone. Parameter <cid> is been set by AT+CNTPCID.

2.14 AT Commands for Record Application

SIM900 can not support record function.

Appendix

A. Related Documents

SN	Document name	Remark
[1]	SIM800 Series_AT Command Manual	SIM800 Series_AT Command Manual_V1.09
[2]	SIM900_AT Commands Manual	SIM900_AT Command Manual_V1 11(0112)
[3]	SIM800 Series _SSL_Application Note	SIM800 Series_SSL_Application Note_V1.01
[4]	SIM900_HTTPS AT Command Set	SIM900_HTTPS AT Command Set_V1 00
[5]	SIM900_Email_AT Command Manual	SIM900_Email_AT Command Manual_V1 04
[6]	SIM800 Series NTP Application Note	SIM800 Series_NTP_Application Note_V1.01
[7	SIM900_NTP AT Command Manual	SIM900_NTP AT Command Manual_V1 00(demo)
[8]	SIM900_DDET_Application Note	SIM900_DDET_Application Note_V1 02(1209)

B. Terms and Abbreviations

Abbreviation	Description
FTP	File Transfer Protocol
HTTP	Hypertext Transfer Protocol
APN	Access Point Name
GPRS	General Packet Radio Service
PDP	Packet Data Protocol
TCP	Transmission Control Protocol
IP	Internet Protocol
UDP	User Datagram Protocol
DNS	Domain Name System
EMAIL	Electronic Mail
SAT	SIM Application Toolkit
STK	SIM Toolkit Command begin tag

| SSL | Secure Socket Layer |
| NTP | Network Time Protocol |

C. Definitions

1. Parameter Saving Mode

For the purposes of the present document, the following syntactical definitions apply:
- **NO_SAVE**: The parameter of the current AT command will be lost if module is rebooted.
- **AUTO_SAVE**: The parameter of the current AT command will be kept in NVRAM automatically, and it won't be lost if module is rebooted.
- **AT&W_SAVE**: The parameter of the current AT command will be kept in NVRAM by sending the command of "AT&W."

If one AT command has not the item of "Parameter Saving Mode", it means this AT command doesn't save the parameter or haven't parameter.

2. Max Response Time

Max response time is estimated maximum time to get response, the unit is seconds.

If one AT command has not the item of "Max Response Time", it means this AT command doesn't care the response time.

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