

2. PERFORMANCE

2.1 H/W Features

Item	Feature	Comment
Standard Battery	Li-Polymer, 760mAh(820 mAh) Size: 44 × 68.6 × 5.6 mm Weight: 22 g	
Extended Battery	T.B.D.	
AVG TCVR Current	Min: 150mA(Pwr Level 19), Max: 300mA(Pwr Level 5)	
Standby Current	< 4.1 mA	
Talk time	Min : 2hr30min (2hr40min) Max : 5hr(5hr20min)	@760(820)mAh
Stand by time	Up to 200 hours	@820mAh
Charging time	2 hours	
RX Sensitivity	GSM, EGSM: -108 dBm, DCS: -107 dBm	
TX output power	GSM, EGSM: 33(32.5) dBm (Level 5) DCS: 30(29.5) dBm (Level 0)	
GPRS compatibility	Class 10(This only applies to G7000)	
SIM card type	Plug-In SIM 3V/5V	
Display	Main : 256 Color-STN(128X160) Sub : Mono(96X64)	
Status Indicator & KeyPad	Status Indicator : 7-color LED Key Pad : • 0 ~ 9, #, *, Navigation Key, Up/Down Side Key • Side Key, Confirm Key, Record Key • Send Key, END/PWR Key	
ANT	Fixed Type	
EAR Phone Jack	Ear-Mic connector	
PC Synchronization	Yes	
Speech coding	EFR/FR	
Data and Fax	Yes	
Vibrator	Yes	
Speaker	Yes	
Voice Recording	Yes	
C-Mic	Yes	
Receiver	Yes	
Travel Adapter	Yes	
Options	Hands-free kit, CLA, Data Kit	

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2.2 Technical Specification

Item	Description	Specification
1	Frequency Band	GSM TX: $890 + n \times 0.2 \text{ MHz}$ RX: $935 + n \times 0.2 \text{ MHz}$ ($n = 1 \sim 124$) EGSM TX: $890 + (n - 1024) \times 0.2 \text{ MHz}$ RX: $935 + (n - 1024) \times 0.2 \text{ MHz}$ ($n = 975 \sim 1024$) DCS TX: $1710 + (n-512) \times 0.2 \text{ MHz}$ Rx: $1805 + (n-512) \times 0.2 \text{ MHz}$ ($n = 512 \sim 885$)
2	Phase Error	RMS < 5 degrees Peak < 20 degrees
3	Frequency Error	< 0.1 ppm
4	Power Level	GSM, EGSM
		LevelPowerToler.LevelPowerToler.
		533 dBm±2dB1317 dBm±3dB
		631 dBm±3dB1415 dBm±3dB
		729 dBm±3dB1513 dBm±3dB
		827 dBm±3dB1611 dBm±5dB
		925 dBm±3dB179 dBm±5dB
		1023 dBm±3dB187 dBm±5dB
		1121 dBm±3dB195 dBm±5dB
		1219 dBm±3dB
		DCS
		LevelPowerToler.LevelPowerToler.
		030 dBm±2dB814 dBm±3dB
		128 dBm±3dB912 dBm±4dB
		226 dBm±3dB1010 dBm±4dB
		324 dBm±3dB118 dBm±4dB
		422 dBm±3dB126 dBm±4dB
		520 dBm±3dB134 dBm±4dB
		618 dBm±3dB142 dBm±5dB
		716 dBm±3dB150 dBm±5dB

Item	Description	Specification	
5	Output RF Spectrum (due to modulation)	GSM, EGSM	
		Offset from Carrier (kHz).	Max. dBc
		100	+0.5
		200	-30
		250	-33
		400	-60
		600 ~ 1,200	-60
		1,200 ~ 1,800	-60
		1,800 ~ 3,000	-63
		3,000 ~ 6,000	-65
		6,000	-71
		DCS	
		Offset from Carrier (kHz).	Max. dBc
		100	+0.5
		200	-30
		250	-33
		400	-60
		600 ~ 1,200	-60
		1,200 ~ 1,800	-60
		1,800 ~ 3,000	-65
		3,000 ~ 6,000	-65
		6,000	-73
6	Output RF Spectrum (due to switching transient)	GSM, EGSM	
		Offset from Carrier (kHz)	Max. (dBm)
		400	-19
		600	-21
		1,200	-21
		1,800	-24
		GSM	
		Offset from Carrier (kHz)	Max. (dBm)
		400	-22
		600	-24
		1,200	-24
		1,800	-27
7	Spurious Emissions	Conduction, Emission Status Conduction, Emission Status	

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Item	Description	Specification		
8	Bit Error Ratio	GSM, EGSM BER (Class II) < 2.439% @-102 dBm DCS BER (Class II) < 2.439% @-100 dBm		
9	RX Level Report Accuracy	± 3 dB		
10	SLR	8 ± 3 dB		
11	Sending Response	Frequency (Hz)	Max.(dB)	Min.(dB)
		100	-12	-
		200	0	-
		300	0	-12
		1,000	0	-6
		2,000	4	-6
		3,000	4	-6
		3,400	4	-9
		4,000	0	-
12	RLR	2 ± 3 dB		
13	Receiving Response	Frequency (Hz)	Max.(dB)	Min.(dB)
		100	-12	-
		200	0	-
		300	2	-7
		500	*	-5
		1,000	0	-5
		3,000	2	-5
		3,400	2	-10
		4,000	2	
		* Mean that Adopt a straight line in between 300 Hz and 1,000 Hz to be Max. level in the range.		
14	STMR	13 ± 5 dB		
15	Stability Margin	> 6 dB		
16	Sending Distortion	dB to ARL (dB)		Level Ratio (dB)
		-35		17.5
		-30		22.5
		-20		30.7
		-10		33.3
		0		33.7
		7		31.7
		10		25.5
17	Side tone Distortion	Three stage distortion < 10%		
18	System frequency (13 MHz) tolerance	≤ 2.5 ppm		

Item	Description	Specification	
19	32.768KHz tolerance	≤ 30 ppm	
20	Ringer Volume	At least 80 dB under below conditions: 1. Ringer set as ringer. 2. Test distance set as 50 cm	
21	Charge Voltage	Fast Charge : < 500 mA Slow Charge: < 60 mA	
22	Antenna Display	Antenna Bar Number	Power
		5	-85 dBm ~
		4	-90 dBm ~ -86 dBm
		3	-95 dBm ~ -91 dBm
		2	-100 dBm ~ -96 dBm
		1	-105 dBm ~ -101 dBm
		0	~ -105 dBm
23	Battery Indicator	Batter Bar Number	Voltage
		0	~ 3.62 V
		1	3.62 ~ 3.73 V
		2	3.73 ~ 3.82 V
		3	3.82 V ~
24	Low Voltage Warning	3.5 $\pm$ 0.03 V (Call) 3.62 $\pm$ 0.03 V (Standby)	
25	Forced shut down Voltage	3.35 $\pm$ 0.03 V	
26	Battery Type	1 Li-Polymer Battery Standard Voltage = 3.7 V Battery full charge voltage = 4.2 V Capacity: 760 mAh(820 mAh)	
27	Travel Charger	Switching-mode charger Input: 100 ~ 240 V, 50/60 Hz Out put: 5.2 V, 600 mA	