

2.3 Power specification

Input 90 ~ 270 V AC, 48 ~ 62Hz
Output From 9 ~ 36 V DC, 1.3 A max

Extra car battery connection plug in is needed

2.4 Terminal Power specification

Input voltage 12v DC

2.5 Back-up battery type & capability

Lithium : 12 V 2AH
- Normal (stand-by): > 24 hours
- Talk time > 3 hours

2.6 RF specification at 800 MHZ

- Freq. Range Tx:824-849MHz,Rx:869-894MHz
(including Tx:835-845MHz,Rx:880-890MHz)
- Wideband 1.25 MHz
- TX maximum output power 0.2w or more
- TX minimum output power -50dBm below
- RX sensitivity -104 dBm below (at FER= 0.5%)
- Freq. Stability $f_0 \pm 300\text{Hz}$
- Single tone desensitization -101dBm below (at FER= 1%)
- RX conducted Spurious Emission TX:-61dBm below, RX:-81dBm below
- Inter- modulation -101dBm- below at CW1:900KHz,CW2:
Spurious Response attenuation 1.7MHZ, -43dBm
-90dBm below at CW1:900KHz,CW2:1.7
MHZ, -32dBm
-79dBm below at CW1:900KHz,CW102:1.7
MHZ, -21dBm
- TX conducted Spurious Emission -60dBm below at-13dBm/1.23MHz
-48 \pm 9.5dBm at system power-25dBm
- Open Loop power control -8 \pm 9.5dBm at system power-65dBm
19dBm~Maximum at system power-105dBm
 $\pm 1\mu\text{s}$ below
- Time reference 0.944 above
- Wave quality DS-CDMA
- Channel access method OQPSK/QPSK
- Mod/Demod 8kbps, 13kbps QCELP/BK EVRC
- Vocoder phase 1: 153kbps
phase 2: 307kbps
phase 3: 2.4Mbps
- Max data transmission
- Operating temperature 0 °C ~ 55C⁰
- Operating humidity 5% ~ 95%

2.7 Subscriber interface specification

- Line voltage: 48V \pm 6V

- Line current: 25mA+ 10mA
- Ring driving: 5.0 REN
- Ring voltage: 70Vrms± 15Vrms (25Hz, 1REN)
- Dimensioning & weight to be detailed by tenderer
- The Internal antenna support and designed as dual polarity type (BI-directional antenna type).

2.8 AC power fluctuation protection to be detailed by tenderer
 2.9 Polarity reversal protection default (detailed description needed)

- 2.10 Visual & Audio Indications
- Low Battery
 - Battery charging
 - AC operation
 - Battery Operation
 - Signal strength indication (SSI) – (LCD is preferred)

2.11 Over voltage and lightning protection:
 The tenderer shall submit a detailed protection method against lightning, Electromagnetic emission and Spark Quench.

3- Terminal Features:

Phone type (FWP) features:

- Programming support without UIM port.
- Menu support Arabic and English language
- Support internet access Via USB/USB port.
- Support Fax
- Caller ID Display
- Support SMS
- Support OTAPA & OTASP Function
- Support Polarity reversal signal for metering (Pay phone – 16 khz)
- DC voltage Polarity reversal (+/- changing) or reverses protection
- Support speaker phone
- Support LCD display (time, data, RSSI, Battery, Message)
- Support Dial feature- Last number redial, out dial, speed dialing, ring type, selection of 15 melodies volume adjustment, ringer volume control, key-one.
- Support display call duration time.
- The ESN must be fixed (cannot changed).

4. FWPs ,must support external 12V car battery connection, with a protection fuse.

5. FWPs, accessories should include extra set of spare battery.



6. MSM chipsets shall be of MSM 5105 or above which supports at least SMS, VMS, MMS

7. Manufacturer supply record:

The tenderer shall provide the supply record and the No. of FWP's working in his country and other world wide countries.

8. Country of origin:

The tenderer shall state the country of origin for the manufacturing of all parts of FWP's.

9. Documents:

The tenderer shall provide a number of original technical documents giving detailed description of the FWP's including all necessary circuit diagram used for repairing the faulty units and trouble shooting procedures.

10. The tendered shall provide user manual Arabic + English language.

11. The warranty shall be one year for this tender.

Bill of Quantity

Item	Quantity
FWP (Phone type)	5,000

**** The End ****



**General Technical specification for the supply of 5000 Fixed Wireless sets
for CDMA2000 1X system (Terminal type)**

1. General Requirement:

- 1.1 The company name & model shall appear on FWT terminal.
- 1.2 The specification gives the technical requirement of FWT for CDMA2000 1X system over IS2000 (IS 95A/B,J-STD-008 backward compatible).
- 1.3 The offer must be complete with all necessary accessories, internal Antennas External Antennas, USB/USB cable Spare Parts on a ready for use base.
- 1.4 Provide solar for 20% of the FWT's to charge extra battery .
- 1.5 Operating frequency bands are: uplink 824 MHz to 849 MHz downlink 869MHz to 894MHz including the freq band uplink (835-845) downlink (880-890).
- 1.6 The CDMA Fixed Wireless Phone Terminals shall comply with CDMA2000 1X or 1xRTT and 3GPP2 standards and voice codec of 13kbps EVRC (Enhanced Variable Rate Codec) and 8 kbps EVRC.
- 1.7 The tenderer are required to provide detailed and comprehensive technical description of the FWT's.
- 1.8 The tendered are required to provide sample of FWT and solar .
- 1.9 Tenderer shall confirm that the entire FWT's are compatible with ITU -T, 3GPP2, IS2000 standards air interface.
- 1.10 All FWT's must be equipped with fax, data, voice, and Internet services.
- 1.11 The logo (هاتفى) of P.T.C should be Printed on the terminal cover.

2. General Specifications:

- 2.1 FWT's shall support Wireless Local Loop (WLL) system based on code division multiple access (CDMA) technology.
- 2.2 Standards:
 - Air interface standard: IS - 2000.
 - Vocoder: IS - 127, IS - 733, IS-96A
 - RF specification: IS - 98C

2.3	Power specification: Input Output	90 ~ 270 V AC, 48 ~ 62Hz From 9 ~ 36 V DC, 2 A max Extra car battery connection plug in is needed
2.4	Terminal Power specification Input voltage	12v DC
2.5	Back-up battery type & capability - Normal (stand-by): - Talk time	Lithium : 2AH > 24 hours > 3 hours
2.6	RF specification at 800 MHZ	Tx:824-849MHz,Rx:869-894MHz (including Tx:835-845MHz,Rx:880-890MHz)
	▪ Freq. Range	1.25 MHz
	▪ Wideband	0.2w or more
	▪ TX maximum output power	-50dBm below
	▪ TX minimum output power	-104 dBm below (at FER= 0.5%)
	▪ RX sensitivity	fo± 300Hz
	▪ Freq. Stability	-101dBm below (at FER= 1%)
	▪ Single tone desensitization	TX:-61dBm below, RX:-81dBm below
	▪ RX conducted Spurious Emission	-101dBm- below at CW1:900KHz,CW2:
	▪ Inter- modulation Spurious Response attenuation	1.7MHZ, -43dBm -90dBm below at CW1:900KHz,CW2:1.7 MHZ, -32dBm -79dBm below at CW1:900KHz,CW102:1.7 MHZ, -21dBm
	▪ TX conducted Spurious Emission	-60dBm below at-13dBm/1.23MHz -48± 9.5dBm at system power-25dBm
	▪ Open Loop power control	-8± 9.5dBm at system power-65dBm 19dBm~Maximum at system power-105dBm
	▪ Time reference	± 1us below
	▪ Wave quality	0.944 above
	▪ Channel access method	DS-CDMA
	▪ Mod/Demod	OQPSK/QPSK
	▪ Vocoder	8kbps, 13kbps QCELP/BK EVRC
	▪ Max data transmission	phase 1: 153kbps phase 2: 307kbps phase 3: 2.4Mbps
	▪ Operating temperature	0 °C ~ 55C°
	▪ Operating humidity	5% ~ 95%
2.7	Subscriber interface specification	
	▪ Line voltage:	48V± 6V



- Line current: 25mA+ 10mA
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3- Terminal Features:

Terminal type (FWT) features:

- Programming support without UIM port.
- Internet access via USB port
- Fax , G3 analogue Fax, PC Fax
- OTAPA & OTASP function
- Polarity reversal signal for metering (Payphone-16KHz)
- DC voltage Polarity Reversal (\pm Changing) or Reversing protection
- RSSI indication
- The ESN must be fixed (cannot change) .

4. FWTs, must support external 12V car battery connection, with a protection fuse.

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