

## 1.2 Standards and Specifications

### 1.2.1 General Specification

Item	Specification
PICO-CELL Types	⇒ 1FA/Omni
Traffic Channels Capacity per Sector	More than 18 Chs/FA ⇒ 13K QCELP Vocoder
Traffic Handling Capacity per Sector	More than 9.0 Erlang/FA ⇒ BP=2%
No. of Channel Elements per Board	20 Channel Elements
Environmental Requirements	
● Operating Temperature Limits	-30 ~ 46°C
● Relative Humidity Limits	0 ~ 90%
No. of Antenna	TX : 1 Path/1FA RX : 2 Path/1FA
RF Output Power	10W / 1FA
Frequency Band	● Downlink (MS → BTS) : 824-849 MHZ (TBD: Changeable depending on operator's request) ● Uplink (BTS → MS) : 869-894 MHZ (TBD: Changeable depending on operator's request)
Rack Size	530(w)x280(d)x750(h)mm

## 1.2.2 RF Specification

### 1.2.2.1 Receiver Specifications

Parameter	Description	Comments
Operation Band	824-849MHz	
Diversity	Space Diversity	
Frequency Transition	Straight Transition of license Block operation	
RF Interface	50Ω nominal impedance	
Noise Figure	5dB (Max)	
Sensitivity	FER is 1.0% or less with 95% confidence.	-117dBm per RF Input port
Dynamic Range	FER is 1.0% or less with 95% confidence .	not less than -65dBm/ 1.23MHz in AWGN and Eb/No of 10dB ±1dB
Conducted Spurious Emissions	Less than -80dBm in 30kHz RBW, RX Band. Less than -60dBm in 30kHz RBW, TX Band. Less than -47dBm in 30kHz RBW, all other frequencies.	

### 1.2.2.2 Transmitter Specifications

Parameter	Description	Comments
Operation Band	869~894MHz	
Frequency Transition	Straight Transition of license Block operation	
Frequency Tolerance	Within $\pm 5 \times 10^{-8}$ of the FA ( $\pm 0.05$ ppm)	
Pilot Time Tolerance	10μs	
Pilot Channel to Code Channel Time Tolerance	The time error between the Pilot Channel and all code channels comprising the Forward CDMA is within ±50ns	
Pilot Channel to Code Channel Phase Tolerance	The phase differences between the Pilot Channel and all code channels sharing the same Forward CDMA shall not exceed 0.05radian	
Waveform Quality	ρ is greater than 0.912 (excess power < 0.4dB)	
Total Power	within +2dB and -4dB of nominal power	
Code Domain Power	27dB or more below the total power in each inactive channel	
Conducted Spurious Emission	-45dBc/ ± 750kHz @30kHz RBW -60dBc/ ± 1.98MHz@ 30kHz RBW ; Pout>33dBm -27dBm/30KHz ; 28dBm<Pout<33dBm -13dBm ± 3.125MHz@ 100KHz RBW	refer to 97C