

**Preliminary Technical Specifications**

Remote Radio Unit (RU)		GSM1800	WCDMA2100
<b>Optical Specifications</b>			
Optical Wavelength	nm	1550 + WDM	
Optical Output Power	dBm	2.5 – 5.5	
Optical Return Loss	dB	> 50	
Optical Link Gain	dB	0	
<b>Electrical Specifications</b>			
Frequency Range	Uplink	MHz	1710 – 1785
	Downlink	MHz	1805 – 1880
Operating Bandwidth	MHz	75	60
Downlink Output Power	dBm	43	43
Maximum gain	Uplink	dB	48
	Downlink	dB	48
Gain Adjustable Range(1dB step)	dB	0 – 30	
Pass Band Ripple (p-p)	dB	≤ 6	≤ 2 @3.84MHz
VSWR		≤ 1.5	
Spurious (out of band 10MHz)	9KHz-1GHz	dBm	≤ -36dBm
	1GHz-12.75GHz	dBm	≤ -30dBm
Intermodulation	dBc	≤ -40	
Uplink Noise Figure at Maximum Gain	dB	≤ 5	
System Group Delay	μsec	≤ 0.5	
<b>Mechanical Specifications</b>			
Dimensions, H x W x D	mm	490 x 370 x 228	
Weight (approx.)	kg	35	
Power Supply	VAC	85 – 264 / 47 – 63Hz	
Power Consumption (approx.)	W	300	
Power Up Waiting Time (approx.)	sec	60	
MCU Battery Backup Time (approx.)	hr	2	
RF Connectors		N – Female	
Fiber Connectors		FC – APC	
Operating Temperature	°C	-33 to +55	
Operating Humidity	%	≤ 95	
Enclosure Cooling		Fan	
Ingress Protection	RF Part	IP65	
	Cover with Fan	IP55	
MTBF	hr	> 50,000	

Note: Typical specification tested at room temperature

## Operation and Maintenance

Installation and commissioning of the RA-7800 can be accomplished by the OMT software via direct connection to a PC that facilitates remote monitoring and parameter adjustment. An optional Operations and Maintenance Center (OMC) software can be incorporated for central monitoring of Comba Products.

The MU and RU are communicated over the optical fiber; hence, the RUs can be remotely controlled by connection to MU locally or remotely.

Adjustable parameters include: Uplink Gain Setting, Downlink Gain Setting, Alarm Threshold Setting, etc.

Monitored parameters include: Downlink Output Power, Temperature, etc.

Alarm parameters include: Downlink Output Power Low, Optical Alarm, Door Open, Temperature, etc.

## Outline Drawing

