

1800MHz Digital Band Selective Repeater

RX-1839

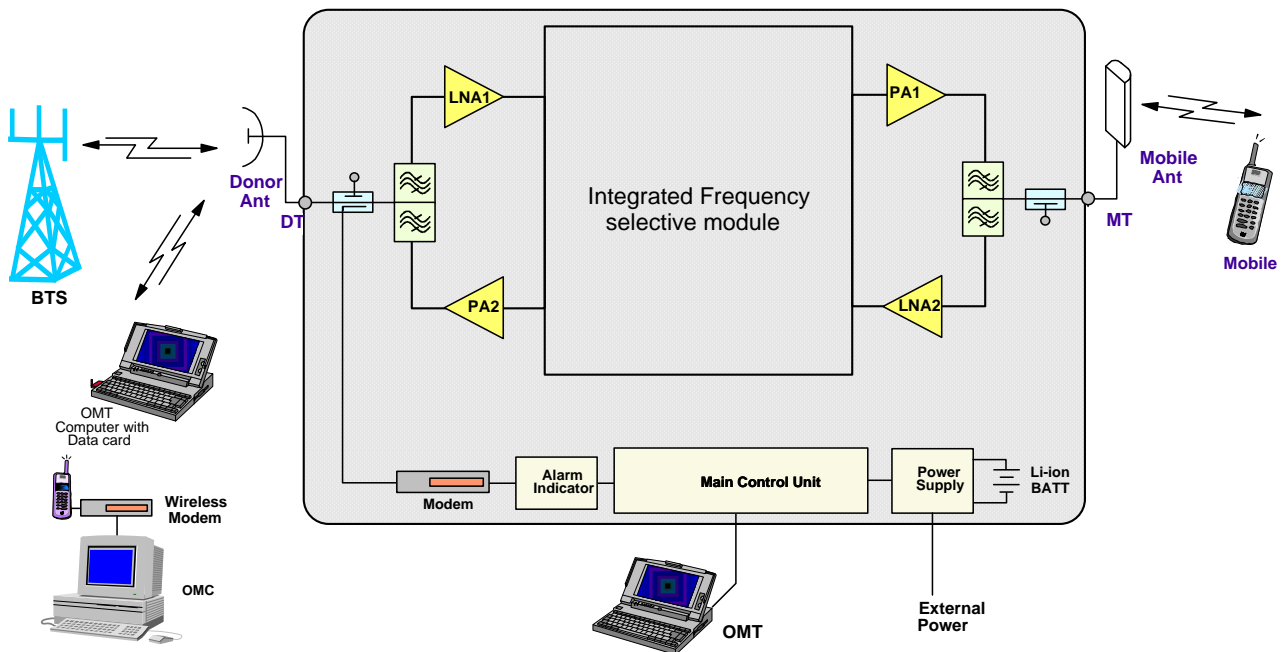
Comba

Features

- Up to 4 pass band segments with independent ON/OFF for maximum flexibility.
- Support GSM and LTE.
- Integrated wireless modem for remote configuration, monitoring and control.
- Offline isolation detection for easy commissioning.
- Internal backup battery keeps the alarm unit running for up to two hours after power failure.
- Compatible to Comba generic OMT and CMS platform.
- Designed for all weather outdoor installation – waterproof, damp-proof and Omni-sealed (IP65).
- Can be configured as Master Unit (MU) or Slave Unit (SU) in a centralized monitoring system.



Functional Block Diagram



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Technical Specifications

Electrical		2W	5W	10W	20W
Frequency Range, Uplink	MHz	1710 – 1785			
Frequency Range, Downlink	MHz	1805 – 1880			
Operating Bandwidth Per Sub-band	MHz	0.2 – 25			
Number of Sub-bands		4			
Instantaneous Bandwidth	MHz	60			
Total Output Power, Uplink	dBm	30			
Total Output Power, Downlink	dBm	33	37	40	43
Maximum System Gain	dB	90			
Gain Adjustment Range (1dB step)	dB	0 – 30			
Pass Band Ripple, p-p	dB	≤ 5			
Uplink Noise Figure	dB	≤ 5			
System Group Delay	μsec	≤ 6.5			
Out of Band Gain		Compliance with ETSI EN 301 908-15*			
ACRR					
EVM					
Out of Band Spectrum Emissions					
Input Intermodulation					
Output Intermodulation					
Out-of-Band Rejection	±600kHz ±1MHz				
Intermodulation @ GSM		dBc	≥ 40		
Absolute Maximum RF Input Power	dBm	-10			
Input VSWR		≤ 1.5			
Impedance	Ω	50			
Mechanical Specifications					
Dimensions, H x W x D	mm	430 x 300 x 164			
Weight (approx.)	kg	18			
Power Supply	VAC	100 – 240 / 47 – 63Hz			
Power Consumption (approx.)	W	130	150	170	180
Power Up Waiting Time (approx.)	sec	180			
MCU Battery Backup Time (approx.)	hr	2			
Enclosure Cooling		Convection			
RF Connectors		N-Female			
Operating Temperature	°C	-33 to +55			
Operating Humidity		≤ 95%			
Environmental Class		IP65			
MTBF	hr	≥ 50,000			

Note: Typical specifications at room temperature

*: Compliant to LTE standard @ UL 23dBm.

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Operation and Maintenance

Using a direct connection to a PC by RJ45, installation and commissioning of the RX-1839 is accomplished by the OMT. Using the integrated wireless modem, the equipment parameters can be monitored and controlled remotely.

Controlled equipment parameters include: RF Switch, Carrier Switch, Isolation Detection Switch, Channel No. Range, ATT, Over-Temp Threshold, DL Input Power Threshold, DL Output Power Threshold and Alarm Report Enable.

Monitored equipment parameters include: Alarms (LNA, PA, PLL unlock, Power Down, PSU Fault, Door Open, DL Input power Overload, DL Output Power Low, Over Temp, VSWR), DL Output Power and DL Input Power.

The RX-1839 has been developed to take advantage of advanced network operation, where the CMS (optional) provides an effective solution for central monitoring of a group of Comba products.

Outline Drawing

