

Features

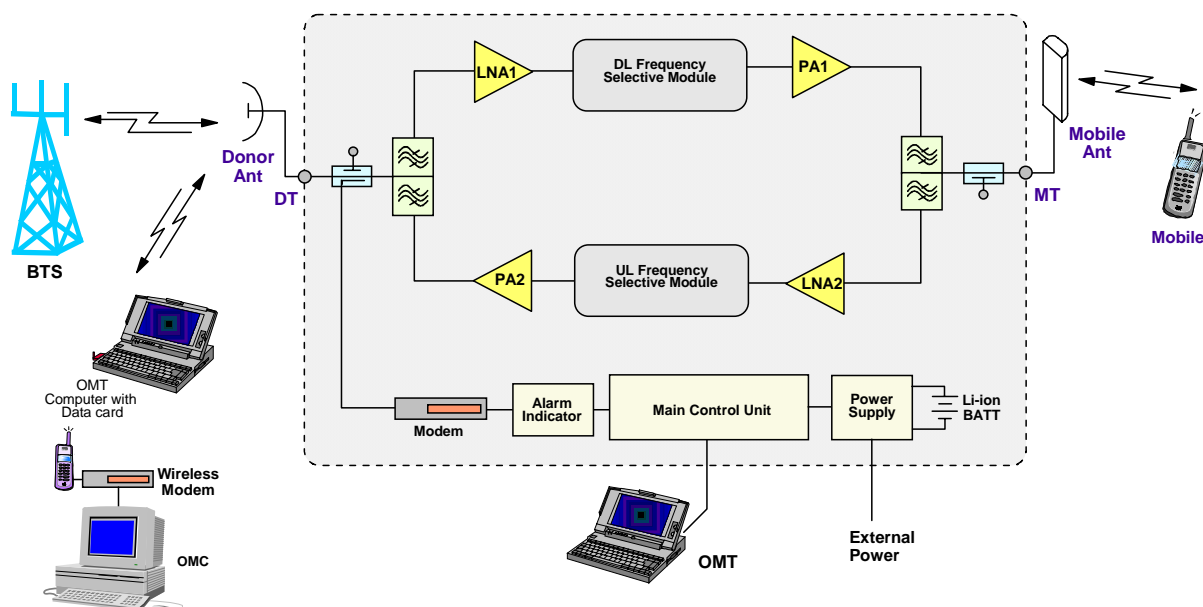
- Different total output power of 2W, 5W and 10W.
- Integrated wireless modem for remote configuration, monitoring and control.
- Internal backup battery keeps the alarm unit running for up to three hours after power loss.
- OMC is available for remote operation and maintenance of repeaters. (Optional)
- Designed for all outdoor installation – waterproof, damp-proof and omni-sealed (IP65).
- 3GPP compliant.



Product Description

The RD-2120 bandwidth adjustable repeater is designed for outdoor operation in the WCDMA band. Band-specific linear amplifier and filtering effectively amplifies the desired NodeB carrier and provides superior out-of-band rejection. Typical units with adjustable bandwidth are programmed to specific requirements of the network. Remote configuration and surveillance is possible through Comba's remote control and monitoring system, via PC or wireless modem to the OMC. Li-ion battery backup ensures alarm signals are sent out in the event of power failure. The RD-2120 comes in a completely sealed, well-ventilated cast aluminum enclosure, suitable for all weather conditions.

Functional Block Diagram



Technical Specifications

Model (Total Output Power)		2W		5W		10W	
Electrical							
Frequency Range, Uplink		MHz	1920 – 1980				
Frequency Range, Downlink		MHz	2110 – 2170				
Number of Channels			1 to 3				
Total Output Power, Uplink		dBm	23 ± 1				
Total Output Power, Downlink		dBm	33 ± 1	37 ± 1		40 ± 1	
Maximum System Gain, Uplink		dB	85 ± 2	85 ± 2		85 ± 2	
Maximum System Gain, Downlink		dB	85 ± 2	85 ± 2		90 ± 2	
Gain Adjustment Range (1dB Step)		dB	0 – 30				
Pass Band Ripple within 3.84MHz, p-p		dB	≤ 2				
System Noise Figure at Maximum Gain		dB	≤ 5				
System Group Delay		μsec	≤ 5				
Out-of-Band Emission			3GPP TS 25.106 and 3GPP TS 25.143 standards compliant				
Out-of-Band Gain							
Spurious and Intermodulation							
Modulation Accuracy							
Input VSWR			≤ 1.5				
Absolute Maximum RF Input Power		dBm	+13				
Impedance		Ω	50				
Power, Mechanical & Environmental							
Dimensions, H x W x D		mm	570 x 330 x 160	570 x 330 x 175		615 x 330 x 200	
Weight (approx.)		kg	25	28		31	
Power Supply		VAC	85– 264 / 47 – 63Hz				
Power Consumption (approx.)		W	150	180		240	
Power Up Waiting Time (approx.)		sec	60				
MCU Battery Backup Time (approx.)		hr	3				
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 specification at room temperature

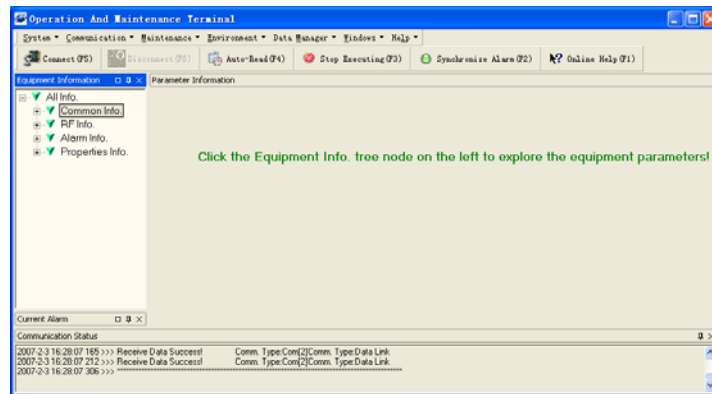
Operation and Maintenance

Using a direct serial connection to a PC, installation and commissioning of the RD-2120 is accomplished by the OMT. Using the integrated wireless modem (data or SMS mode), the equipment parameters can be monitored and controlled remotely.

Controlled equipment parameters include: Channel No., ATT, RF Switch, 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, Chassis Lock, Self-Oscillation, DL Input Power Overload, DL Output Power Low, Over Temp, VSWR), DL Output Power and DL Input Power

The RD-2120 has been developed to take advantage of advanced network operation, where the OMC (optional) provides an effective solution for central monitoring of a group of Comba products.



Outline Drawing

