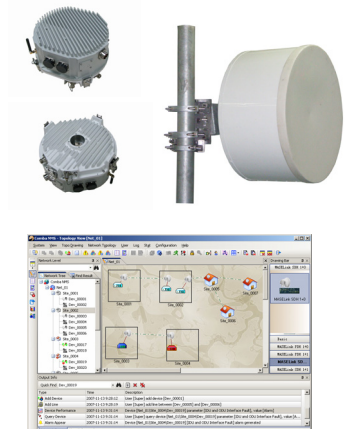


Features

- Full Outdoor Equipment (FOE) integrated ODU and IDU together.
- Standard compliant system for 6-23GHz.
- Supports 300Mbps Ethernet Payload.
- Supports space / frequency diversity and hot standby, unprotected (1+0) and protected (1+1).
- Adaptive Transmit Power Control (ATPC) function.
- Automatic Gain Control (AGC) function.
- Hot standby and hitless Rx protection switching.
- Local management via CIT to facilitate commissioning.
- Access to CIT menu through wireless connection
- NMS for end-to-end link performance, monitoring and diagnosis with SNMP management.
- Loopback testing functions to facilitate commissioning and troubleshooting.
- Direct mount to microwave antenna.
- Wide operating temperature ranges from -33°C to +55°C.



Product Description

Comba Digital Microwave System allows transmission links to be established rapidly and easily to meet a variety of transmission needs, brings cost savings and helps rapid network rollout. This solution comprises of: Antenna, Full Outdoor Equipment (FOE) and NMS.

The IP radio system is an IP transmission solution designed to seamlessly incorporate radio links into wide range of infrastructures, working across a variety of frequencies from 6GHz to 23GHz and meeting carrier-grade standards for reliability, quality and environmental compliance.

The FOE is able to transport Ethernet traffic at a throughput of 300Mbps.

Please consult us for exact and detailed product requirement for the territory(s) concerned, and to use the "Microwave Parabolic Antennas" datasheet to select the required antenna(s) for each link.

Technical Specification

Electrical - System		6GHz	7GHz	8GHz	11GHz	13GHz	15GHz	18GHz	23GHz
Frequency Range	GHz	5.925-7.110	7.10-7.90	7.90-8.50	10.67-11.74	12.80-13.20	14.50-15.30	17.70-19.70	21.20-23.60
ITU-R Compliance		F.383-7 (Lower) F.384-7 (Upper)	F.385-7	F.386-6	F.387-9	F.497-6	F.636-3	F.595-3	F.637-3
Modulation Scheme		128QAM							
ITU-R RF Tx/Rx Spacing	MHz	252.04 (Lower) 350 (Upper)	154 or 161	119, 126 or 311.32	490, 500 or 530	266	420 or 490	1010 or 1008	1008 or 1232
RF Channel Bandwidth	MHz	56MHz							
Tx power at Antenna port (± 2 dB tolerance)	dBm	21			19			18	17
Tx Power Control Range (1 dB step)	dBm	0 to +21			0 to +19			0 to +18	0 to +17
Receive Sensitivity @ BER = 1×10^{-6} (Guaranteed: +2dB)	dBm	-66			-65			-64	
RX AGC Control Range	dB	≥ 60							
Frequency Stability	ppm	± 10							
Residual BER		$\leq 1 \times 10^{-13}$							
Supported RF Configurations		1+0, 1+1							
Radio Protection		Hot standby/ Space diversity / Frequency diversity							
IP Interfaces		IEEE 802.3, Fiber Optic Gigabit Ethernet SFP Transceiver:1000Base-LX							
Throughput (max)	Mbps	300							
Power Supply	VAC	220 (160~265)							
Power Consumption (per hop)	W	≤ 40							
RSSI Connection		BNC							
Remote IDU access		Out-of-band							
Monitoring Port Interface	CIT	F-interface, VT-100, via local CIT RS-232, DB-9 to wireless							
	NMS	In-band							
Front Panel LEDs		Run/Alarm							
Mechanical - ODU									
Dimensions (H x W x D)	mm	160x240x280							
Weight	kg	<10							
Operating Temperature	$^{\circ}$ C	-40 ~ +80							
Operational Altitude Above Mean Sea Level (max)	m	4500							
Operating Humidity	%	≤ 95							