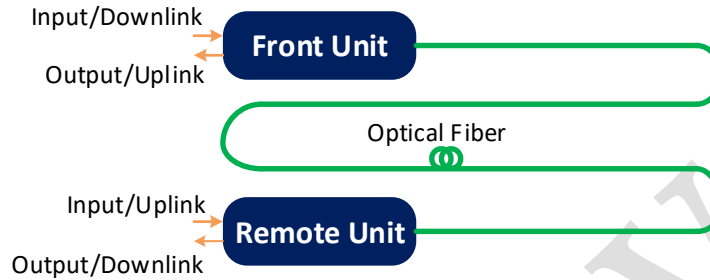


Broadband RF Optical Relay, Front and Remote Unit

Broadband RF optical relay is designed to allow wireless signals travel long distances with minimum loss and latency to in-buildings, roads, rail tunnels, large public venues and macro networks. The broadband operation makes it versatile for a variety of applications and suitable for co-site multiple wireless networks¹.



Front Unit: To receive RF signals via direct coupler close to respective base stations or via air, then convert these signals into optical signals and transmit to remote unit via optical cable. Or convert optical signals from the remote unit then transmit to base stations through coupler or via air.

Remote Unit: To convert optical signals receive from front unit to RF signals, which are then sent to additional filters and amplifiers then transmitted through RF coaxial cable to the air over antennas or RF leaky cables. Or convert RF signals received from the antennas or RF leaky cables to optical signals then transmit to the front unit through optical cable.

A typical system consists of front and remote units, and applicable signal conditioning and amplifying equipment.

Major Features

- Broad Band operation for versatile applications
- Single optical connection
- Built-in gain adjustment adaptive for various link budget
- Built-in WDM supports one-way as well as two-way communications
- Built-in optical link detection and alarm²
- Status and alarm LED indicators
- Dry contact and RS232 ports for local monitor
- Optional RJ45 port for remote monitor through NMS³, or optional SMS for remote monitor
- Standard indoor rack mount or IP65 rated ruggedized chassis for harsh environment installation



¹ Additional Filtration may be required to eliminate co-site interference.

² Not applicable to model EODAB-3.

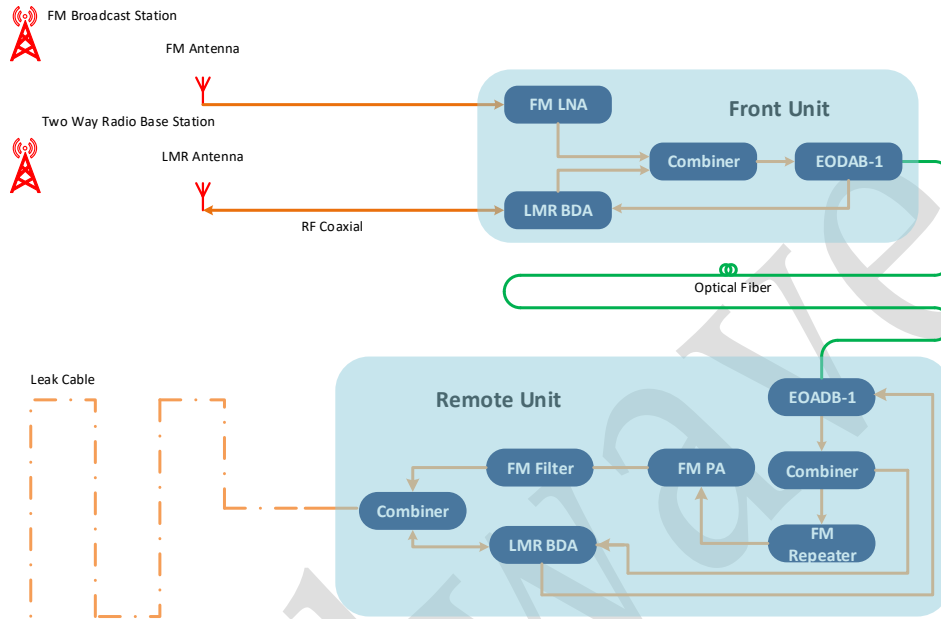
³ Custom protocol for various NMS.

Model Number		RF Frequency Range
		EODAB-1 80 - 520MHz
		EODAB-2 617-2700MHz
		EODAB-3 138-960MHz
		EODAB-4 1610-3000MHz
Optical Wavelength		1310 nm and 1550 nm
Optical Output Power		4 ± 2 dBm
Optical Input Power		-18 - +6 dBm
Alarm Level	Optical Output Power	≤-3 dBm
	Optical Input Power	≤-16 dBm
Optical Power Range	Optical Output Power	-3 - +6 dBm
	Optical Input Power	-18 - +6 dBm
WDM		Internal
Connecter	Optical	1x FC/APC
	RF	2x N-Female
RF Input Power		0dBm typical, -20dBm – +10dBm adjustable
RF Output Power		0dBm typical, -20dBm – +10dBm adjustable
RF System Gain Adjustment		0-30 dB
Typical RF System Gain	Uplink	0 ± 2 dB
	Downlink	0 ± 2 dB
VSWR		1.5:1
Ripple		≤1 dB
Intermodulation Products		≤ -50dBc
Noise Floor		≤-133dBm/Hz
Spurious Emission		≤ -60dBm/100KHz
Time Delay		≤ 60ns
Power Supply		110-230VAC±10%, 50 Hz
Environment Conditions		IP40 ⁴
Operating Temperature		-10°C - +45°C
Fiber type		Single mode
Transmission Distance		≥ 12.4miles(20Km)
Dimensions		1U EIA 19" Rack Mount
Weight		≤11.0lbs(5.0Kg)

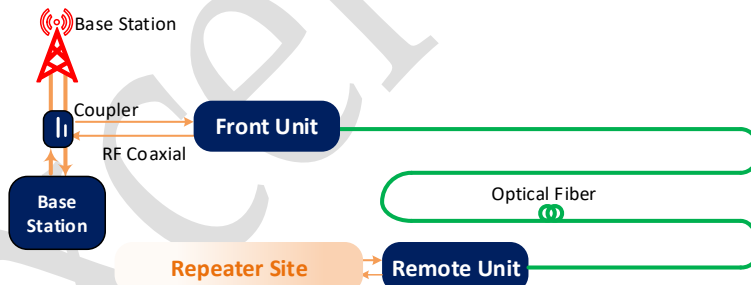
⁴ IP65 option is available with different equipment chassis.

Application Cases

A FM and Two-Way Radio Rebroadcast System



A Repeater Site with Direct Coupling from Base Station



A 4 Channel LMR System

