

LMR – DMR VHF High Performances In-Line Booster

Model No: ILB-150-33W40



Features:

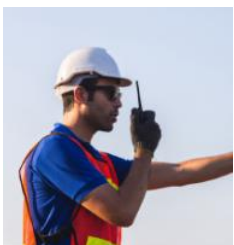
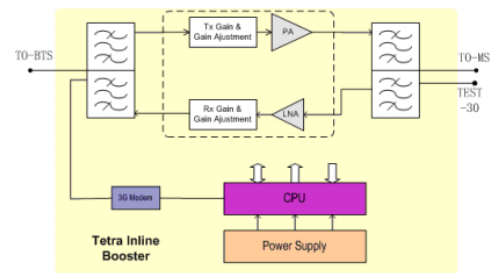
- **Optimized for Indoor and Tunnel Coverage:** Designed for indoor distribution systems and tunnels
- **Advanced Bi-Directional Technology:** Employs bi-directional amplification to ensure signal integrity
- **Multiple Power Options:** Available in 30 / 33 / 37 dBm composite power types, compliant with LMR//DMR system standards.
- **APCO-25 and Analog VHF Compatibility:** Supports all configurations of APCO-25 and analog VHF band operations.
- **Rapid RF Coverage Expansion:** Enables quick deployment of RF coverage within an LMR network.
- **Compact and Robust Design:** High-performance, waterproof enclosure suitable for indoor/ outdoor
- **Metal Cavity Filter Technology:** Delivers improved receiver-transmitter separation, gain flatness, enhanced stability, and a lower noise figure.
- **Flexible Connectivity:** Equipped with Wi-Fi or RJ45 port options for local monitoring, remote management through the built-in wireless modem, interfacing with the NMS

Introduction

The EMTS LMR/PMR In-Line Booster (ILB) offers a robust solution to mitigate insertion losses from passive components and transmission losses in feeder cables, particularly in indoor distribution systems and tunnel coverage scenarios. By deploying the ILB, LMR/PMR operators can effectively expand the service area of a base station, offsetting feeder losses through signal amplification along coaxial or leaky cables utilizing Advanced Bi-Directional Technology.

The ILB's lightweight design, straightforward installation process, and user-friendly GUI enhance ease of deployment and operation. This solution is a cost-effective and practical option for improving signal coverage in areas with limited LMR/PMR network reach, such as buildings, shopping centers, airports, and tunnels. The ILB seamlessly integrates into passive Distributed Antenna Systems (DAS) via coaxial cable connections, offering a wide range of configuration options to meet diverse customer requirements.

System Block Diagram



EMTS Telecom Services offers a comprehensive portfolio of enhanced coverage solutions for Wireless Networks, Based on advanced technologies. EMTS-proven, indoor and outdoor solutions solve a wide range of network challenges including interference and oscillation problems, challenging coverage holes, rapid response deployment, and inadequate in-building coverage. Regardless of the technology or frequency, EMTS can provide customized coverage solutions that address any combination of unique and complex network needs for Wireless Networks.

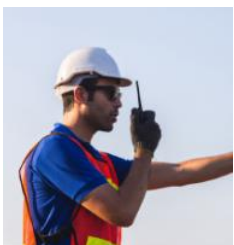
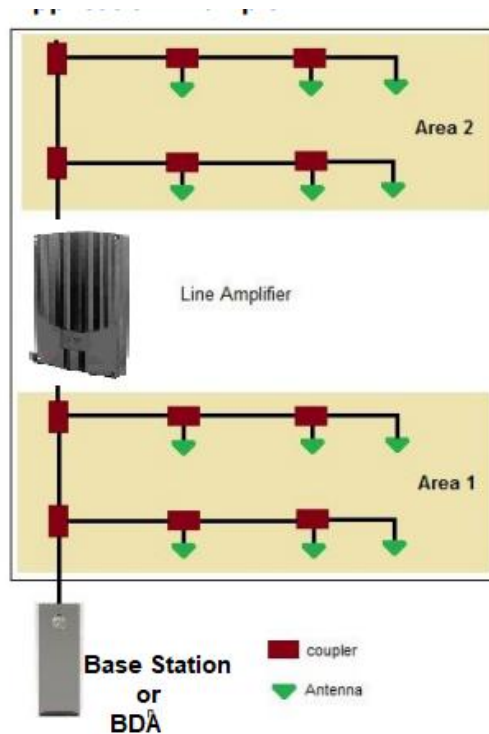
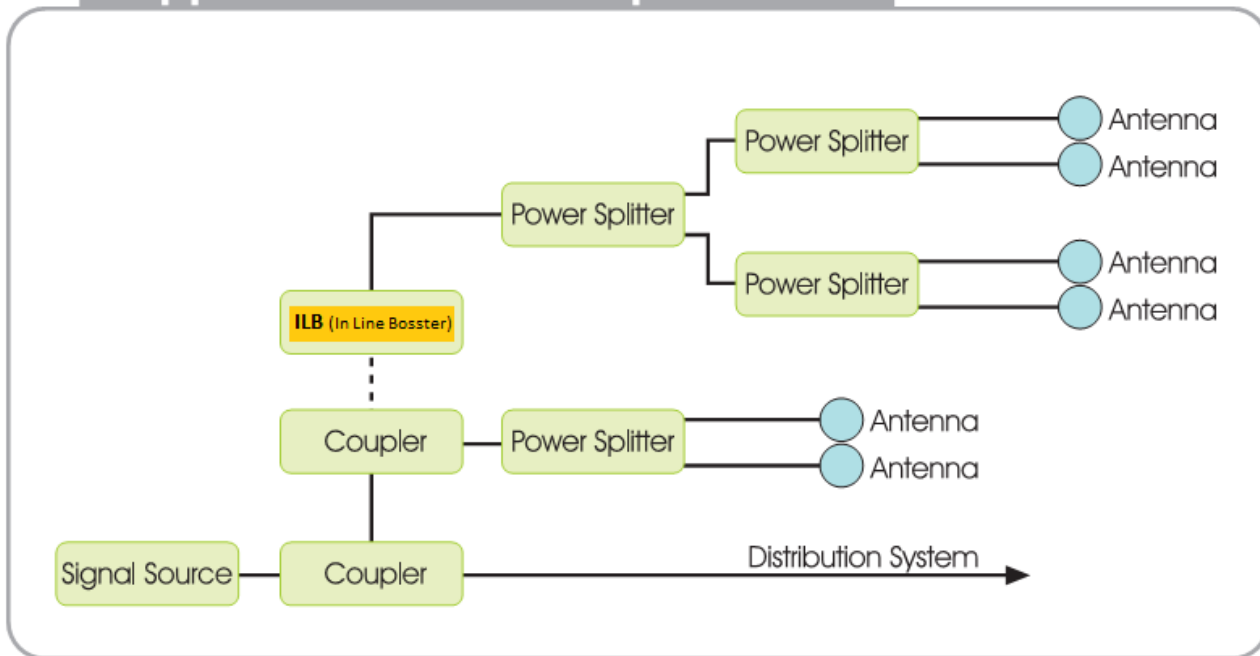
Technical Specifications

	Downlink	Uplink
Electrical Specifications		
Frequency Range	136-174 MHz	136-174 MHz
Bandwidth	For uplink and downlink 1 to 5MHz with a gap of 3MHz or more	
Output Power	33dBm	20dBm
Gain	40±3dB	40±3dB
In-band ripple	≤3dB	
Gain adjustable range	≥30dB	
Gain adjustable step	1dB	
Noise figure	≤4dB	
VSWR	≤2:1	
Transmission delay	≤5us	
Spurious	≤-36dBm (9KHz to 1GHz) ≤-30dBm (1GHz to 12.5GHz)	
External connection		
Connector	N-F / 50 ohm	
Alarm Detection	HPA, LNA, TEMP, PSU, Digital IF module, Door Local LED display, Dry Contacts; RS232 local monitoring	
Local Alarm;	Via RJ45 connectivity using web browser PSU, HPA, LNA, Digital IF Module, Temp, Door open	
NMS interface	Using ethernet connectivity or 3/4G modem	
Power Supply	110 to 220VAC ±15% 50-60Hz / 100 Watts Optional 24 Vdc or -48 Vdc	
Environmental		
Operating Temperature Range	-20 to +55 °C	
Cooling	Convection	
Environmental Sealing	IP65	
Operating Humidity	Up to 95% (non-condensing)	
Complies with	EN 301 489-18, ETSI TS 101 789-1, EN 60 950	
Standards	450×400×295 mm	
Weight	18Kg	



About EMTS Telecom Services Ltd.:
EMTS is a leading supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in difficult RF environments and complex settings. The company specializes in extending RF radio coverage to rural areas, office buildings, subways, tunnels, and shadowed areas. The EMTS coverage solution supports all major mobile technologies and standards of wireless Networks.
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Application Sketch Map



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