

In-Line Booster High Performances 30dBm TDD n78 3300-3800MHz

Model No: ILB-150-33W40



Features:

- **Signal enhancement** enhances signal strength in areas with weak coverage, improving connectivity for devices operating within this TDD frequency range.
- **Optimized for Indoor and Tunnel Coverage** Designed for indoor distribution systems and tunnels
- **Connected to a DAS from BTS/gNB or 5G Repeater** Employs TDD amplification to ensure signal integrity
- **TDD synchronization mechanism** ensures seamless time alignment between uplink and downlink signals, preventing interference and optimizing spectrum efficiency in time-division duplex communication,
- **Built-in 5G Dynamic TDD Sync Detection Module** automatic completion of 5G wireless network cell search and wireless signaling processing
- **Comply with standards** Fully comply with 3GPP, ETSI and CE with 30dBm downlink power
- **Rapid RF Coverage Expansion** Enables quick deployment of RF coverage within an n78 network.
- **Compact and Robust Design** High-performance, waterproof enclosure suitable for indoor/ outdoor
- **Customized frequency Band** Input-output filters to support the n78 operator band.
- **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 n78 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, n78 operators can effectively expand the service area of a **BTS/gNB or 5G Repeater**, 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 n78 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.



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

Electrical Specifications		
System/Technology		5G NR N78
Frequency Range (Customized)	Uplink (Rx)	3300 to 3800 MHz
	Downlink (Tx)	3300 to 3800 MHz
Composite Output Power	Uplink (Rx)	-10±2dBm
	Downlink (Tx)	30±2dBm
Maximum Gain		40±3dB
Gain Adjustment Range		0 to 20dB
AGC Range		≥10dB
Noise Figure		≤ 5dB
Spurious Emission		9kHz to 1GHz: ≤ -36dBm
		1GHz to 12.75GHz: ≤ -30dBm
EVM		≤ 3.5%
VSWR		≤ 1.5
System Delay		≤ 1.5μs
Maximum Input Power		10dBm
I/O Impedance		50 Ω
RF Connector		2*4.3-10 Female (One Input Port and One Output Port)
Power Supply		110 to 220VAC ±15% 50-60Hz / 50 Watts Optional 24 Vdc or -48 Vdc
Mechanical Specifications		
Dimensions		370*295*152mm
Weight		≤ 12kg
Mounting		Wall Mounting



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.

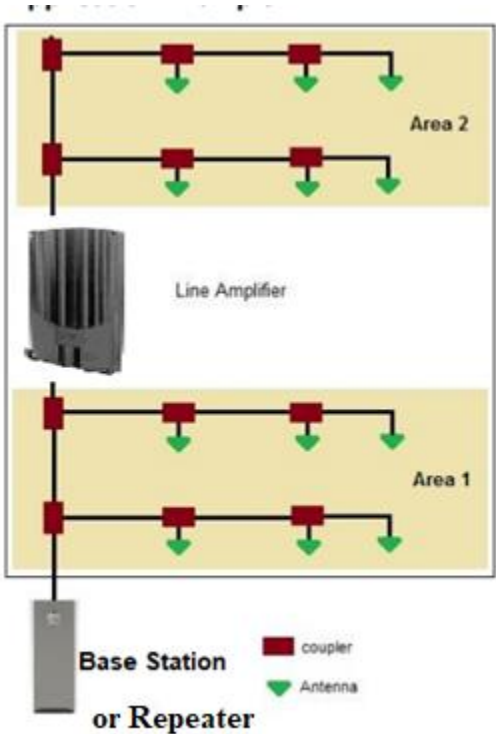
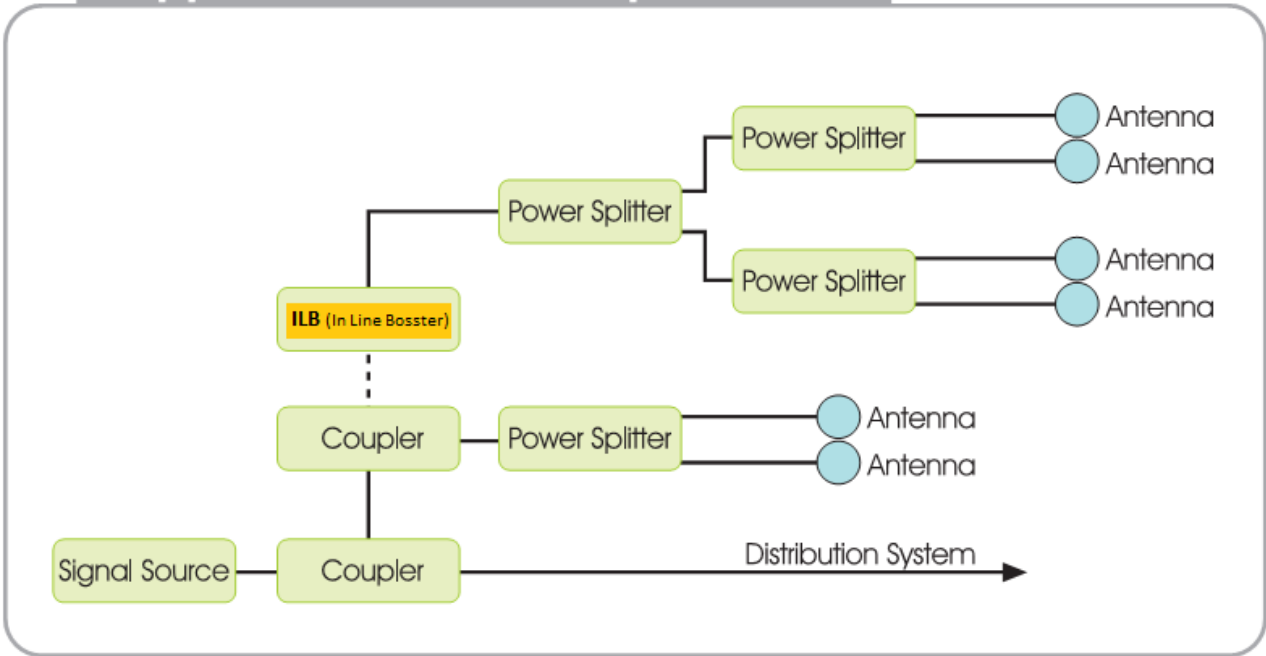
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Environmental Specifications	
Operating Temperature	-20 to +50 °C
Application	Indoor & Outdoor (IP65)
Relative Humidity	5% to 95%
MTBF	≥ 100,000 Hours
Connection	
LED Indicator	Power Supply, Running, Alarm
Local Control	Via USB Interface
NMS Mode	Cloud NMS through Built-in 4G Wireless Modem
Comply with standards	
Standard	Fully comply with ETSI & 3GPP Standards: Safety: EN 60950 EMC: 3GPP TS 38.114 Rado: ETSI TS 138 106, titled "5G; NR repeater radio transmission and reception"
CE	Comply with CE Requirements



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Application Sketch Map



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