

37dBm VHF LMR-PMR-DMR Digital Channel Selective Bi-Directional Amplifier

Model No: CS-BDA-VHF-37W90



Features:

- Off-the-air VHF channel selective Bi-Directional Amplifier
- Utilizes advanced digital IF technology, Channels controlled locally or via NMS
- Intelligent design, with built-in ALC function, provides auto amplitude compensation
- It is designed to support Mission Critical Services for the VHF system at the 136-174 MHz band
- The VHF channels for indoor DAS to expand signal coverage and fill the signal blind area where VHF signals are weak or unavailable, using Channel-selective capabilities.
- Stable and improved signal transmission quality
- The off The-Air BDA uses to extend network coverage for indoor or outdoor uses.
- Aluminum casing with IP66 protection highly resists dust, water, and corrosion
- WIFI or USB port provides a link to a notebook for local supervision or to the built-in wireless modem to communicate with the NMS (Network Management System)

Introduction

The EMTS Telecom Services Channel selective VHF BDA provides an excellent solution to extend VHF network coverage for Indoor or Outdoor uses; for Indoor it can feed a lucky feeder or Distributed Antenna System; using the BDA, the LMR operator can easily expand a base station's service area by filling in coverage holes caused by terrain, buildings, or tunnels. The BDA amplifies the signals from LMR BTS using a downlink amplifier, and the signals from the handset are transmitted to the BTS using an uplink amplifier. The BTS signals are selected via the digital engine, and the signals transmitted from the BDA to the BTS are filtered via a digital engine. The donor antenna transmits signals from the VHF handset and receives signals from the BTS. Easy installation, lightweight design, and very friendly GUI make our BDA easy to use and install. The EMTS BDA is a cost-effective and practical solution for extending signal coverage and includes a wireless modem to support remote and monitoring NMS.



EMTS Telecom Services offers a comprehensive portfolio of enhanced coverage solutions for the 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 the Wireless Networks.

Technical Specifications

Electrical Specifications	Uplink	Downlink
Frequency Ranges (MHz)	136-174 MHz	136-174 MHz
Operational Bandwidth	1-5MHz band for uplink and 1-5MHz band for Downlink The frequency separation between uplink and Downlink is 2 to 10 MHz	
Digital channels	Up to 8 X 25KHz Channel settings can be set via GUI	
Gain	90 dB $\pm$ 2 dB	
Gain Adjustment Range	30 dB in 1 dB step	
Pass Band Ripple	$\leq \pm 1.5$ dB	
Output Power	30dBm	37 dBm
AGC Range	20 dB	
VSWR	2:1	
Noise Figure @ Max Gain	5 dB	
Spurious	≤ -36 dBm (9KHz to 1GHz) ≤ -30 dBm (1GHz to 12.5GHz)	
Group Delay	35 μ s	
External connection		
Connector	N-F / 50 ohm	
Alarm Detection	HPA, LNA, TEMP, PSU, Digital IF module, Door	
Local Alarm;	Via RJ45 connectivity using web browser PSU, HPA, LNA, Digital IF Module, Temp, Door open	
NMS interface	Using ethernet connectivity or a 4G modem	
Power Supply	110 to 220VAC $\pm$ 15% 50-60Hz / 120 Watts Optional 24 Vdc or -48 Vdc	
Environmental		
Operating Temperature Range	-20 to +55 $^{\circ}$ 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	428*328*175mm	
Weight	18Kg	
Standard	Comply with CE requiemnts	



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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Note: All specifications subject to change without notice.