

33dBm VHF Band Selective Bi-Directional Amplifier (BDA)

Model No: BSPR-VHF-33W85-147

Features:

- Bi-Directional Amplifier configuration for off-air signal operation, Comply with DMR/LMR/PMR standards; Fully transparent to the P25/TETRA /Analog networks
- Designed to support voice data and dispatch; Provide quick RF coverage extension to the radio network
- Linear power amplification effectively suppresses inter-modulation and spurious emission with extremely low power consumption
- Metal cavity filter technology allows wider receiving/transmitting separation, higher stability and lower noise figure
- Intelligent design with a built-in ALC function provides auto amplitude compensation
- Water proof enclosure suitable for outdoor and indoor deployments
- USB port for local supervision; built-in 4G modem to communicate for remote management and configuration. WiFi connectivity for local settings via mobile app.
- Web GUI NMS using cloud base with diagnostic function that sends error messages via email in case of faults



Introduction

The EMTS Telecom Services Ltd. VHF band selective Bi-Directional Amplifier (BDA) provides an excellent solution for in-building applications to the problem of poor signal coverage or outdoor coverage extension. Typical applications are airports, tourism regions, tunnels, factories, mining districts, villages, hotels, exhibition centers, basements, shopping malls, offices, parking lots and others. With the EMTS BDA, the DMR operator can quickly expand a base station's service area by filling in coverage holes caused by terrain, buildings, or tunnels. The BDA amplifies the DMR/LMR/PMR handset signals and base stations and can be used in dead areas where service is poor. Using a coaxial cable, the BDA is connected to an outdoor 'donor' antenna. The donor antenna transmits signals from the DMR/LMR/PMR handset and receives signals from the BTS. Easy installation, lightweight design and very friendly GUI make the EMTS BDA easy to use and install.

EMTS Telecom Services offers a comprehensive portfolio of enhanced coverage solutions for Wireless Networks, Based on advanced technologies. EMTS has proven, that 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	Uplink	Downlink
Frequency Range ¹	147-174MHz	147-174MHz
Uplink-Downlink guard band	5MHZ	
Pass Bandwidth	5MHZ	
Gain	85dB (±3dB)	
Gain Adjustment Range	30dB in 1dB step	
Pass Band Ripple	±1.5dB	
Composite Output Power	24dBm (±1dB)	33dBm (±1dB)
AGC Range	30dB	
VSWR	1.5:1	
Noise Figure @Max Gain	≤5dB	
Superius Emission & Intermodulation	Fullyc omply with ETSI TS151 026	
GroupDelay	5μsec	
External connection		
Connector	N-F/50ohms	
Alarm Detection	HPA, LNA, TEMP, PSU, Digital IF module, Door Local LED display, Dry Contacts; via4G modem	
Local Setting	Through RJ45/USB or WIFI connectivity	
Remote management and alarms (optional)	Via 4G modem using EMTS cloud base NMS	
Power Supply	AC220V (+/-15%) with charging capability of -48VDC battery for power backup (the battery supplied by customer)	
Power Consumption	<80 watts	
Size (WxHxD)	447mm X 357mm X 171mm	
Installation	Wall or Pole mount	
Environmental		
Operating Temperature Range	-30 to+55 °C	
Cooling	Convection	
Environmental Sealing	IP65	
Operating Humidity	Up to 95% (non-condensing) comply with ETSI EN300019-2-4	
MTBF	>100,000 Hours	
Comply Standards	EN 301 489-18, ETSI TS 101 789-1, EN 60950	
Certification	CE comply	

¹ The Uplink and Downlink frequencies shall be defined by the customer.

About EMTS Telecom Services Ltd.:

EMTS is a leading supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in challenging 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 wireless networks' standards.

Specification may change without notice

