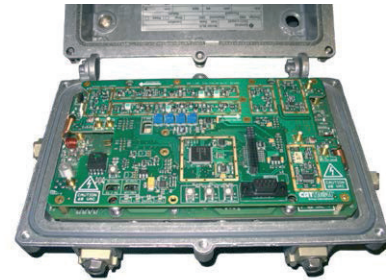


Bi-Directional Amplifier

SIAMnet™



UNDERGROUND MINES COMMUNICATION SYSTEMS

HIGHLIGHTS

- 800 MHz LMR band, supports multiple wireless voice and data channels concurrently
- CATV Cable Modem band, supports DOCSIS high-speed Ethernet and WIFI networks
- Diagnostic system, supports remote monitoring and configuration

FEATURES

- Excellent 800MHz signals propagation, covers long distances
- Supports analog and/or digital, conventional and/or trunking two-way radio systems
- Uses low-cost CATV cable and accessories available worldwide
- Power from the CATV coaxial cable eliminates costly AC power outlet installations and allows for an efficient battery backup system
- Diagnostic capability enables troubleshooting and remote configuration without going onsite

APPLICATIONS

- Combining Two-Way Voice and Mobile Data Communication technologies with high speed data networks make the SIAMnet the perfect communication system for underground mines.
- Wireless Vehicular Communication systems for dispatch, monitoring and production control
- Underground mines (non coal)
- Railway tunnels

SPECIFICATIONS

800 MHZ AMPLIFIER (BDA)	DOWNLINK	UPLINK	REMARKS
800MHz SMR band	851-870 MHz	806-825 MHz	
Flatness	0.5 dB	0.5 dB	
Gain	34 dB or better	34 dB or better	
Maximum input power (port P1)	0 dBm	0 dBm	
Input attenuator option	10 dB	10 dB	Separately activated, locally or remotely
Maximum power, single carrier	+33 dBm	+30 dBm	± 1 dB
Manual gain control	0-34 dB	0-34 dB	Independently, in 1 dB steps
Noise figure	6 dB	6 dB	
1 dB compression point	+33 dBm	+26 dBm	± 2 dB
Channel separation	>40 dB	>40 dB	
Port impedance	75 ohm	75 ohm	CATV Compatible KS connexion
Test points	F female	F female	20 dB attenuation

CABLE MODEM AMPLIFIER (CMA)	DOWNSTREAM	UPSTREAM	REMARKS
Frequency bands	150-190MHz	5-90 MHz	DOCSIS & EuroDOCSIS
Flatness	0.5dB	0.5 dB	
Gain	0-25 dB	0-25 dB	
Equalizer adjustment	0.5-2 dB	0-8 dB	
Maximum power, single carrier	+ 54 dBmv	+54 dBmv	0 dBm=48.75 dBmv

ELECTRICS & MECHANICAL		
Uplink port (P1), downlink port (p2)	5-870 MHz	Bi-directional port, 800 MHz and cable modem
RF and AC Power	45-60 Vac 10 A	
AC power source	P1 or P2	Select port from which AC power is present
AC power pass through P1-P2	On/Off	Locally or remotely activated relay contact
AC power breaker	10 Amps	Resettable Locally or Remotely
Internal diagnostic led	5 total	P1 AC power, P2 AC power, PA Power OK, AC Trip, F1 fuse blown
Operating ambient temperature	-20 to +50C	The ambient temperature may be less once the amplifier has started and reached its operating temperature
Housing	NEMA4	Aluminum casting, used as heat sink, IP67, RF sealed.
Overall dimensions	10.5 X 7.5 X 4.5"	
Weight	3 kg	
Connectors	KS female	P1, P2

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BI-DIRECTIONAL AMPLIFIER_DS_EN_201811

DIAGNOSTIC SYSTEM

Local gain control	BDA & CMA	800MHz and cable modem amplifiers
Monitoring	Voltages AC & DC, RF Signal strength, RSSI, etc	

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