

microwave photonic systems

IDAS-800/SMR

IDAS-800/SMR: 800 MHz Digital (SMR) Repeater System



Expanded In-Building Coverage for 800 MHz Trunk Radio Systems for Critical Communications and First Responder Network Traffic Over Distributed Antenna Systems

The IDAS-800/SMR, is a 800 MHz Fiber Optic “In-Building” Transmission System, which provides a novel RF design approach to achieve the operational requirement of providing expanded continuity of critical communications network traffic. The IDAS-800/SMR consists of a suite of hardware elements including a Bi-Directional Amplifier (IDAS-800/BDA), a Central Fiber Donor Unit (IDAS-800/CFDU) and a Remote Fiber Unit(s) (IDAS-800/RFU).

The IDAS-800/SMR utilizes proprietary and field proven Radio Frequency and Fiber Optic technology to transmit and receive the full spectrum of 800 MHz trunking radio signal traffic over a Hybrid Fiber Coax structured Distributed Antenna System (DAS). This approach, provides the ability to securely route and distribute 800 MHz signal traffic to mounted antenna locations throughout the communications network infra-structure beyond the limitations of conventional coaxial based deployment schemes. The IDAS-800/SMR can be integrated into architectures requiring Point-To-Point or Point-To-Multi-Point topologies supporting both single and multiple user augmentations found within Hospitals, Schools, Parking Garages, and Public Transit Facilities. The IDAS-800/SMR can be packaged to support a wide range of market segments to include: Outdoor Harsh Environments (Rooftop / Pole Mount) and Commercial Telecom grade. A portable version is available which is packaged in transit cases and allows for temporary emergency response scenarios.

Information: Call us toll-free at 888-868-8967 or email info@b2bphotonics.com

Market Applications

- Network Operation Centers
- Emergency Response Centers
- Schools & Libraries
- Courthouses & Prisons
- Airports, Rail Road Stations, Bus Terminals
- Hospitals & Police Stations

Features & Options

- Pre & Post Band Switched Filtering
- All Passive Hardware Supports AWS, LTE, iDEN & WiMAX Technologies
- Battery Back Up Options Available
- Front Panel Display of System Status
- Remote Status Monitor and Control
- 1 Year Warranty

Deployment Schemes

- Distributed Antenna Systems
 - Point to Point : Single or Multi-User
 - Point to Multi-Point: Single or Multi-User

Packaging Options

- Wall Mount
- Rack Mount
- Indoor or Outdoor Roof Top
- Portable Transit Case for Emergency Response Scenarios

Microwave Photonic Systems, Inc.

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800 MHz Fiber Optic In-Building Repeater System

Specifications

Optical Parameters

Optical Wavelength:	1310 nm , 1550 nm or CWDM available
Optical Output Power:	4 mW (typical)
Optical Connector:	FC/APC , SC/APC, or E2000 APC
Max Optical Reflections:	< - 55 dBm
Fiber Optic Cable Type:	Single Mode, 9/125 um
Optical Link Budget:	up to 10 dBo

RF Parameters

Downlink Frequency Range	851-869 MHz ; [851-861 MHz Post Re-Band]
Uplink Frequency Range	806-824 MHz ; [806-816 MHz Post Re-Band]
Rejection:	+35 dBc (typical) @ +/- 4MHz from Passband
Gain:	80 dB (min)
Gain Flatness:	+/- 1.5 dB (max)
Noise Figure:	5.0 dB (max) ; 4.5 dB (typical)
Attenuation Range:	0 - 30 dB in 2dB increments
Power Output @ 1dB Compression:	Uplink: +34.0 dBm (typical) Downlink: +44.0 dBm (typical)
Output Power ALC Set:	Uplink: +27 dBm (typical) Downlink: +37 dBm (typical)
Output Composite Power:	Uplink: +27 dBm (typical) Downlink: +37 dBm (typical)
Output 3rd Order Intercept:)Uplink: +47 dBm (typical) , 2 tones @ +20 dBm Downlink: +55 dBm (typical) , 2 tones @ +31 dBm
Impedance (Input / Output):	50 Ohms
VSWR (Input / Output):	1.5:1
RF Connector (Input / Output):	N-Female

Additional Specifications

AC PWR Input:	Auto Ranging, 120 VAC, 60 Hz, Single Phase
DC Input Voltage:	+24 to +27 VDC, -48 VDC Optional
Unit Power Consumption (AC/DV):	< 100 VA
AC Receptacle:	IEC 320
Storage Temperature:	-20°C to +80°C
Operating Temperature:	-10°C to +50°C
Status & Control:	RS-232, RS-485 or Ethernet Options
Battery Backup:	2 , 4 and 8 Hour Options Available
Dimensions & Weight: Wall Mount	14" x 18" x 6" & 25 lbs (US)



IDAS-800/CFDU
Central Fiber Donor Unit



IDAS-800/RFU
Remote Fiber Unit

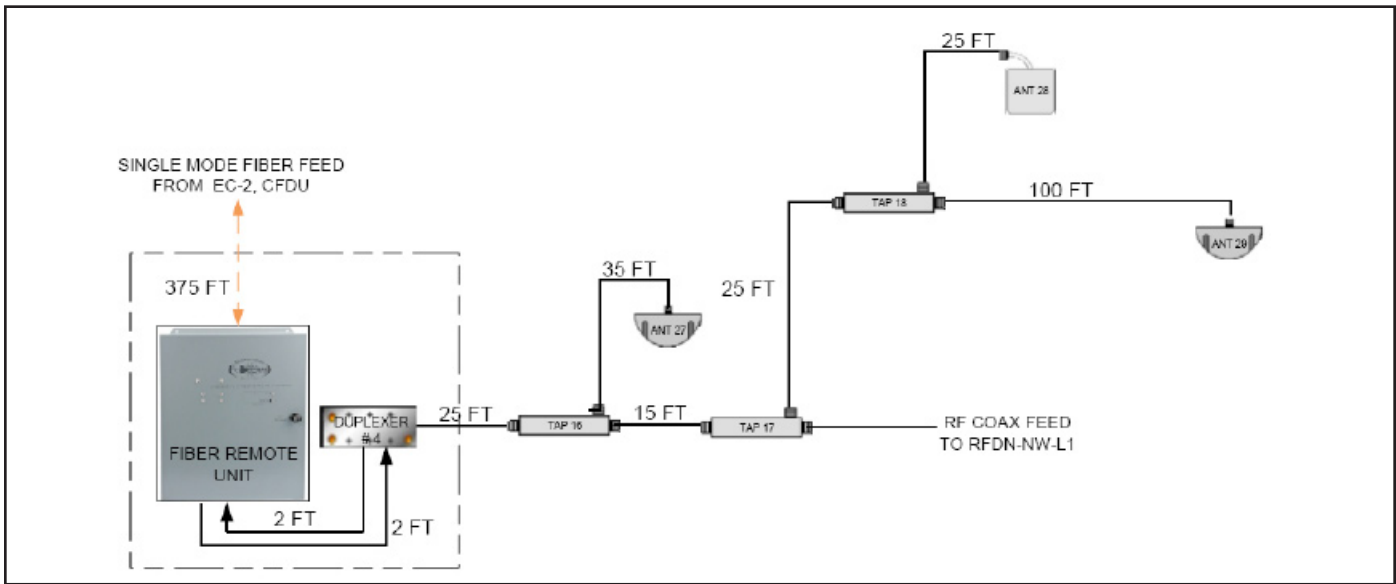


IDAS-800/BDA
Bi-Directional Amplifier

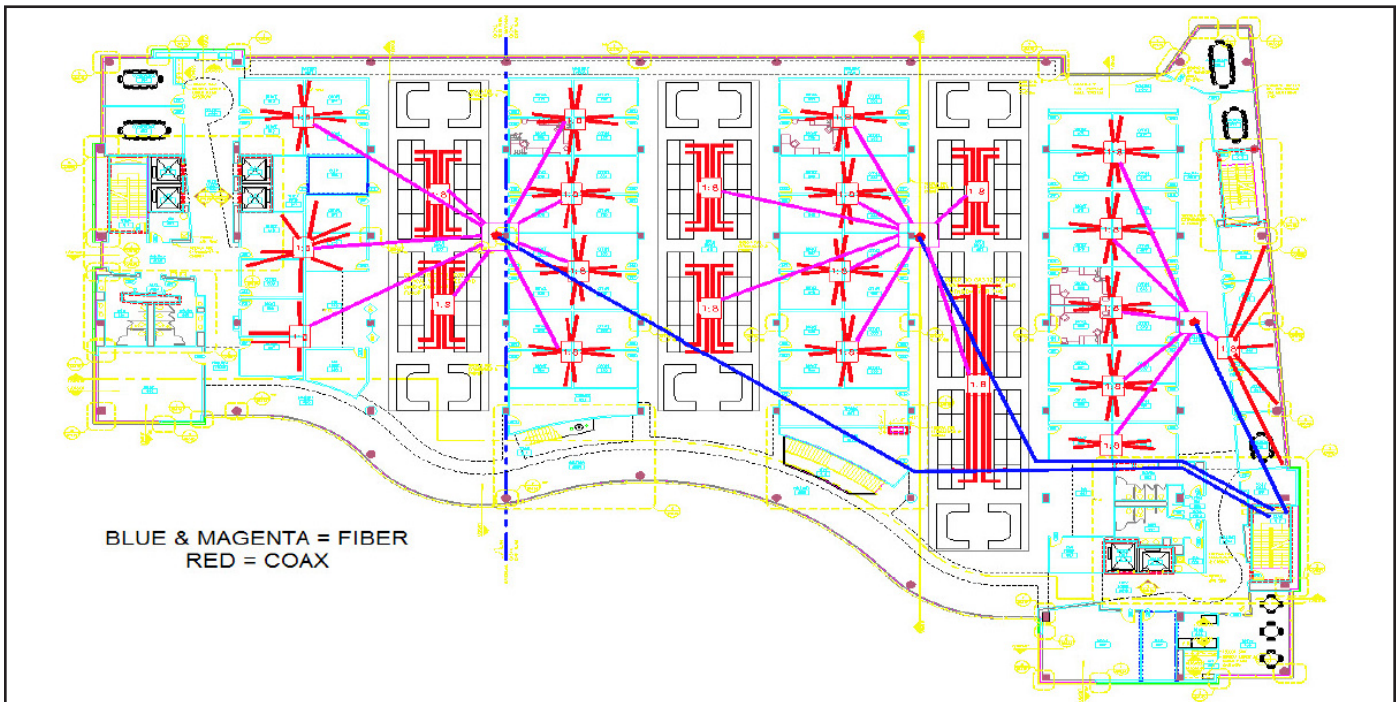
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Functional Block Diagram: Hybrid Fiber Coax Distributed Antenna System (example)



Deployed Site Overlay: Hybrid Fiber Coax Distributed Antenna System



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