SHYAM

Next Generation Signal Enhancement

Optical Repeaters

Optical Distributed Antenna Systems (DAS)

Shyam Telecom's Optical Distributed Antenna System (DAS) consists of a Master Unit which is connected to different Remote Units through fiber. The system provides uniform coverage throughout an in-building environment, from underground car parks to elevators to the highest floors, while seamlessly integrating with the macro networks.

Key Benefits

- Uniform wireless coverage, enabling fixed-mobile convergence.
- Enables high availability of enterprise voice/data business productivity applications throughout the building.
- Highly flexible and upgradeable system.
- Integrated solution for providing Wi-Fi coverage in buildings.
- Repeater Management System (RMS) allows for active monitoring, configuration, and alarm facilities of the deployed system in an environment that demands high availability and reliability of wireless voice/data communications.
- The system taps the capacity of a nearby existing BTS, thereby increasing network utilization.

Application Areas for Optical Repeaters

- Tunnels, highways and other outdoor locations.
- High-rise buildings.
- Offices, shopping malls, hospitals, airports.
- Basements and car parking areas.

BTS Link 104/108, 204/208, 304/308 Repeater

BTS Link 104/108 is a Single Band distributed antenna system, available in 2 versions. The 104 version supports up to 4 ROUs and the 108 version supports up to 8 ROUs.

MOU 104

MOU 208

BTS Link 204/208 is a Dual Band distributed antenna system, available in 2 versions. The 204 version supports up to 4 ROUs and the 208 version supports up to 8 ROUs.

MOU 308

BTS Link 304/308 is a Tri Band distributed antenna system, available in 2 versions. The 304 version supports up to 4 ROUs and the 308 version supports up to 8 ROUs.

BTS Link Family : Salient Features

- Compatible with GSM CDMA, & other technologies used in mobile communications around the world.
- Available for SMR / Cellular / iDEN / EGSM / GSM 900 / DCS 1800 / PCS / UMTS / AWS frequency bands.
- Compatible with frequency hopping BTS.
- Low noise and highly linear performance.
- Comprised of a Master Optical Unit (MOU) installed close to the BTS, and Remote Optical Units (ROUs) installed at distant (Indoor/ Outdoor) locations. Single mode optical fiber connects the MOU with the ROUs.
- The MOU receives RF signals in pre-assigned bands from the BTS in DL path & transmits after conversion to optical signals on a single mode fiber to ROU.
- ROU reconverts optical signals to RF signals and radiates after amplification.
- In the UL path, the ROU receives RF signals from the mobile users and converts the same to optical signals for transmission to MOU where signals get reconverted to RF signals for transmission to the BTS.
- The signals between MOU and ROU are propagated as optical signals which help in achieving antenna isolation for maximum RF Power transmission.
- System monitoring is through USB port with easy GUI.
- Remote CMC monitoring with RF modem is optional.
- Remote Management System (RMS) is optional.

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Single/Dual/Tri Band Remote Optical Unit (Indoor/Outdoor)

Salient Features

Single/Dual/Tri Band Remote Optical Unit (SBROU/DBROU/TBROU) is part of a BTS/ Optilink system for point-to-point / point-to-multipoint applications through optical fiber.

Depending upon the coverage required the unit for indoor or outdoor application can be installed.

Indoor Unit

Outdoor Unit

- Compatible with GSM, CDMA, iDEN and WCDMA technologies.
- Available for SMR / Cellular / iDEN / EGSM / GSM 900 / DCS 1800 / PCS / UMTS / AWS frequency bands.
- Designed for indoor/outdoor solutions.
- Low noise, highly linear performance and high reliability.
- Single mode optical fiber connects the MOU with the ROUs.
- System monitoring is through USB port with easy GUI.
- Remote CMC monitoring with RF modem is optional.
- Remote Management System (RMS) is optional.
- Microprocessor controlled features like APC, local control, alarms and RSSI indication.
- Power Options: +19 to +40 dBm.

Fast BTS Link 204

Salient Features

MOU 204

ROU 204

Fast BTS Link 204 is a Dual Band, plug-and-play fiber distributed antenna system.

Designed for quick and easy deployment, the system comprises of a Master Unit connected to Remote Optical Units using a composite fiber cable.

Four low power Remote Units of 19 dBm provide coverage in areas up to 4,000 sq. meter (40,000 sq. feet). Composite fiber eliminates the need for power supply at Remote Unit locations.

- Supports up to 4 Remote Optical Units per system.
- MOU and 4 ROUs as a complete kit.
- Composite copper fiber based system.
- Centralized Power Supply available at all four remote units (optional).
- Plug-and-play system.
- Available in BTS or off-air interface
- Low power Remote Optical Units of 19 dBm.
- Compact and lightweight system.

Optilink

Salient Features

Optilink

Optilink system is a scalable Dual Band distributed antenna system for point to multi-point coverage. The system is comprised of a Master Optical Unit (MOU) which interfaces with BTS(s) through a Point of Interface (POI) unit.

Mobile coverage can be extended to indoor or outdoor locations by installing up to 90 remote units using an expansion shelf. The system uses a pair of single mode fiber for connectivity between MOU and ROU, and is best suited for high-rise buildings and large coverage areas.

- Available in 3 configurations-
  1+1 configuration : 1 BTS in each band
  2+2 configuration : 2 BTS in each band
  3+3 configuration : 3 BTS in each band.
- Compatible with GSM, CDMA, iDEN and WCDMA technologies.
- Available for SMR / Cellular / iDEN / EGSM / GSM 900 / DCS 1800 / PCS / UMTS / AWS frequency bands.
- Designed for indoor/outdoor solutions.
- Low noise, highly linear performance and high reliability.
- System monitoring is through USB port.
- Remote Management System (RMS) is optional.

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Shyam Telecom enables reliable mobile communication for GSM, CDMA, iDEN®, UMTS, TETRA™, and Public Safety. We design and manufacture innovative coverage solutions for mobile operators, real-estate developers, neutral-host providers, businesses, and residences. Our experiences from operating CDMA and GSM mobile networks have allowed us to design solutions which seamlessly integrate with macro networks of mobile operators. We are at the forefront of in-building wireless, shaping the realm of infinite possibilities.

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