SOLiD ALLIANCE-TR DAS General Specifications:

ALLIANCE-TR BIU
(BASE-STATION INTERFACE UNIT)
Power Supply Range: AC 110/220V ± 10% AC (100V to 240V)
DC -48V (DC: -42V to -56V)
RF Input Range: +23dBm to +43dBm
VSWR:1.5:1
Mounting Type: 19" Rack
Max Power Consumption:
Master BIU: 210W at full load with max 4 ODUs
Slave BIU: 90W at full load
Max Weight: 23kg at full load with 4 MDBUs
Size: (WxHxD) 482.6 (19") x 177 (4U) x 345.6mm
Operating Temperature: 5º to 50º C
Ethernet ports for connection to laptop on-site or remote NOC.

ALLIANCE-TR ODU
(OPTICAL DISTRIBUTION UNIT)
Input Voltage: DC +12V powered by BIU
Mounting Type: 19" Rack
Max Power Consumption: 30W at full load
Max Weight: 4.5kg at full load
Size: (WxHxD) 482.6 (19") x 43.6 (1U) x 345mm
Signal Input: Tx/Rx jumpers from BIU
Fiber Link Budget: 10dBo / 5dBo for single mode
Supports up to 8 optical connections

ALLIANCE-TR REMOTE
(GENERAL SPECIFICATION)
Environmental Condition & IP rating: IP66
Operating Humidity: 5 to 90% non-condensing
Nominal Impedance: 50 ohm
VSWR: 1.5:1
Mounting Type: Wall mounting (optional pole mount)
Extension Port: For add-on unit

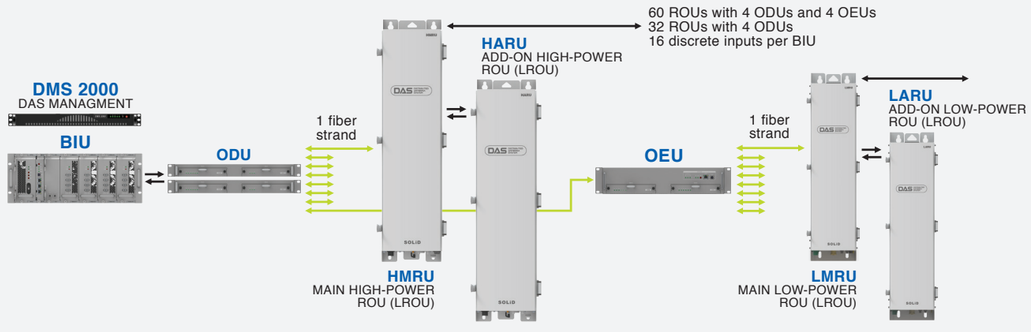
ALLIANCE-TR LROU
(LOW POWER REMOTE OPTICAL UNIT)
Max Output Power: 37dBm(5W) or 33dBm (2W) per band
Max Power Consumption: < 250W at full load
Max Weight: ~32.5kg at full load
Power Supply Range: 110/220V ± 10% AC (100V to 240V)
Operating Temperature: -25º to +55º C
Size: (WxHxD) 220 x 910 x 224.5 mm (With mounting bracket)

ALLIANCE-TR HROU
(HIGH POWER REMOTE OPTICAL UNIT)
Max Output Power: 43dBm (20W) per band
Max Power Consumption: < 700W at full load
Max Weight: ~57kg at full load
Power Supply Range: 110/220V ± 10% AC (100V to 240V)
Operating Temperature: -25º to +55º C (With fan unit)
Size: (WxHxD) 320 x 1165 x 260mm (With mounting bracket)

SOLiD ALLIANCE-TR DAS System-level Regulatory Compliance:

APPROVAL/CERTIFICATION TYPE	EMC (CE)	RF (CE)	EMC&RF (ANATEL)
EN 62311 EN 60950-1 EN 60950-22	EN 301 489-01 EN 301 489-08 EN 301 489-23	EN 300 609-4 EN 301 908-1 EN 301 908-11 EN 301 908-15	3GPP TS 36.143 Resolution 554 Resolution 442 Resolution 544 Resolution 454

SOLiD ALLIANCE-TR DAS Topology Overview:



Connect with SOLiD

SOLiD helps people stay connected and safe in a rapidly-changing world through a portfolio of RF Amplifier, RF Radio and Optical Transport solutions. SOLiD enables indoor and outdoor cellular and public-safety communications at some of the world's best-known and most challenging venues including leading hospitals; professional and college sports venues; government, university and Fortune 500 corporate buildings and campuses; international airports and metropolitan subways.

solid.com

JULY 2017

800 Klein Road
Suite 200
Plano, TX 75074

solid.com
888.409.9997
sales@solid.com

equipo/equipe CALA

TL9000 H,V: R5.5/R5.0 ISO9001 CERTIFIED ISO14001

SOLiD ALLIANCE-TR™ Multi-Carrier / Multi-Band DAS

FEATURES:

MULTI-BAND – FIBER EFFICIENT
Up to eight bands of SISO or MIMO over a single fiber.

ADVANCED AMPLIFIER TECHNOLOGY
SOLiD's patented digital amplifier technology specialized for wide-band and multi-channel services.

NO NEED FOR POI CONNECTION
High power attenuators and duplexers embedded in the head-end.

IP66 CERTIFIED
Rugged design enables outdoor mounting (wall or pole) of remote units.

WEB-BASED MANAGEMENT
Management software allows on site or remote setup, monitoring and reporting.

BENEFITS:

USER CONVENIENCE
Software functions like spectrum monitoring, PIM level detection and EasySET reduce time and costs for system setup and optimization.

HIGHER POWER EFFICIENCY
New amplifier technology supports smaller, lighter remote units that use less power.

EASY UPGRADES
Modular design supports incremental additions of capacity and services.

FLEXIBLE DEPLOYMENT
Mix and match remote types (high-power/low-power) in one system.

SOLiD ALLIANCE-TR is an advanced multi-carrier, multi-band DAS solution that delivers exceptional RF performance – fulfilling coverage and capacity demands while minimizing capital and operational expenses.

SOLiD ALLIANCE-TR™

Multi-Carrier/Multi-Band DAS

SOLiD ALLIANCE-TR SUPPORTS BOTH ANALOG AND DIGITAL CELLULAR SYSTEMS IN MULTIPLE BANDS THROUGH A SINGLE STRAND OF FIBER:

OUTPUT POWER	700 LTE	800iDEN	850 Cellular	GSM 900	GSM 1800	1900 PCS	2100 AWS1+3	UMTS 2100	LTE 2600
HIGH-POWER HROU	43dBm	43dBm	43dBm	43dBm	43dBm	43dBm	43dBm	43dBm	43dBm
LOW-POWER LROU	33dBm	33dBm	33dBm	33dBm	33dBm	33dBm	33dBm	33dBm	37dBm

ALLIANCE-TR BIU
(BASE-STATION INTERFACE UNIT)

The BIU is the central input point (head end) for all signals delivered over the DAS. Each signal input is independently filtered, attenuated, and controlled.

FEATURES:
Guaranteed RF power control for each input
Modular and hot swappable
Ethernet port for DAS management
Discrete RF inputs per carrier per band
Simplex or duplex input

BENEFITS:
Add bands without adding equipment
Modular head end decreases complexity and reduces operational costs
Rack mountable to decrease expansion costs

ALLIANCE-TR ODU
(OPTICAL DISTRIBUTION UNIT)

The ODU converts RF to optical to transport signals over long distances with very little loss. The ODU is generally rack-mounted near the BIU from which it receives power and RF communication.

FEATURES:
1 ODU can drive up to 8 ROUs or 6 ROUs and 2 OEUs
4-port / 1 port optical modules are hot swappable

BENEFITS:
Only 1 fiber strand is required to connect to each remote unit
Modular design simplifies capacity upgrade

ALLIANCE-TR OEU
(OPTICAL EXPANSION UNIT)

The OEU is an optical multiplexing device used to efficiently extend the DAS from one building to many others.

FEATURES:
Each OEU can support up to 8 ROUs
A single sector (1 BIU) can support up to 4 OEUs
Each OEU requires only 1 ODU port and 1 fiber strand

BENEFITS:
Much less equipment is required to serve multiple buildings
Saves space and power requirements in remote buildings

ALLIANCE-TR DMS 2000
(DAS MANAGEMENT SYSTEM)

The DMS is the control interface for the SOLiD DAS, providing configuration, alarming, and network intelligence for comprehensive DAS management.

FEATURES
Web-based real-time DAS status
Allows on-site or remote command and control
Each DMS can manage 20 sectors
Alarm notification via SNMP traps
Programmable dry contacts
Supports multiple NOCS

BENEFITS
Enables remote control and monitoring
Improves customer service
Expedites issue resolution
Eliminates unnecessary site visits
Command and control functionality for remote modifications and support

EFFICIENT, MODULAR, POWERFUL

GUARANTEED POWER CONTROL
Discrete inputs enable independant RF power control for each carrier frequency band.

HIGHLY EFFICIENT
Delivers maximum efficiency while maintaining spectral compliance with specialized amplifiers for wide-band and multi-channel services.

MODULAR COMPONENTS
Quickly and easily add new services and capacity.
Hot-swappable RF components maximize system uptime.

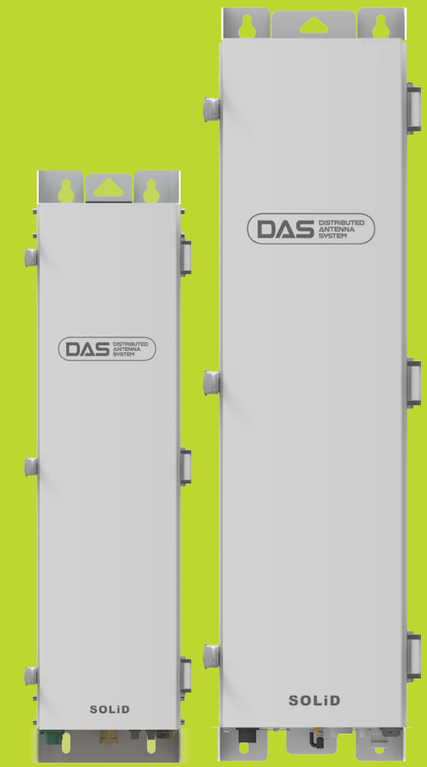
RUGGED DESIGN
Secure in wet, dusty, and highly trafficked environments with IP66 compliance and double-locking cabinets.

SYSTEM SECURITY
Web-based DMS management system makes system commissioning, configuration, alarming, and firmware upgrades simple – either on-site or from an off-site NOC.

DAS EXPANSION LINKS
(1 STRAND OF FIBER PER)

ALLIANCE-TR ROU
(REMOTE OPTICAL UNIT)

The ROU receives signals through an optical interface, distributes those signals to independent amplifiers, then combines the RF into one output port.



LOW-POWER ROU (LROU) HIGH-POWER ROU (HROU)

FEATURES
Available in High- or Low-Power versions (HROU/LROU)
Add-on units available for each remote type to support up to 8 frequency bands
Wall or pole mounting, AC powered
Convection cooling for LROU
Fan unit for HROU

BENEFITS
High output power reduces total number of ROUs required
Small footprint and IP66 rating provide flexible deployment options