CALIAN ®

Confidence. Engineered.

AureLink
DOCSIS 4.0 Remote PHY test platform

Validate DOCSIS 4.0 cable modems with the confidence of standardized equipment

Use AureLink to verify your DOCSIS 4.0 cable modems' interoperability with CCAP cores to eliminate problems encountered in the field. Calian's Remote PHY technology has been extensively tested for DOCSIS compliance and interoperability with various CCAP cores to provide standardized communication with your cable modem.

Access Remote PHY status

AureLink provides Remote PHY functionality along with detailed provisioning logs and diagnostic information to allow end-to- end system verification of:

- MAC sequencing and PHY connectivity
- CCAP Core L2TPv3/GCP DOCSIS messaging

The FPGA-based solution allows access to data that is not easily available from alternate Remote PHY solutions.

Full cable modem throughput testing

AureLink supports full throughput testing of your cable modem. It transmits up to 5 DS OFDM and 32 DS SC-QAM channels, while receiving up to 7 US OFDMA and 4 ATDMA channels. It is also equipped with PNM and R-OOB functionalities for satisfy a wide variety of testing requirements.

Supports versatile FDD and FDX testing

AureLink supports versatile testing of both DOCSIS 4.0 Frequency Division Duplex (FDD) and Full-Duplex (FDX) operating modes through direct connection to a cable modem.

Flexible future-proof solution

Powered by flexible and programmable devices, the AureLink can be easily upgraded to support new features and future DOCSIS specification releases reducing the cost of future testing requirements.
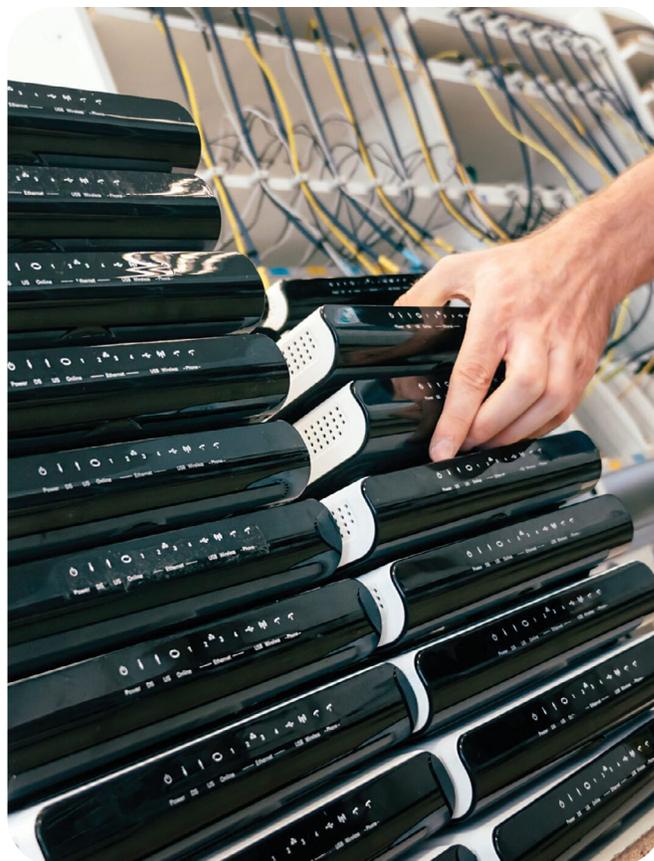
Specifications

RF interface (75–ohm F connector)

Downstream RF output	54 MHz to 1,796 MHz RF power compatible with direct connection to DOCSIS 4.0 cable modems 46 dB MER (typical) with all channels active
Upstream RF input	5 MHz to 684 MHz RF power compatible with direct connection to DOCSIS 4.0 cable modems

DOCSIS capabilities

DS DOCSIS OFDMs	5 x 192 MHz (up to 4 profiles per channel) 16 QAM up to 4096 QAM (No restrictions on exclusion bands (per PHYv3.1)
DS SC–QAM	32 x ITU J.83 Annex A / B 64 QAM, 256 QAM (All Annex B interleavers supported)
US DOCSIS OFDM	7 x 96 MHz QPSK up to 1024QAM
US SC–QAM	4 x A-TDMA QPSK up to 64QAM
PNM	DS: Symbol capture US: Upstream Triggered Spectrum Captuer, Active/Quiet Probe Capture; RxMER
R–OOB	4 x NDF, 4 x NDR, 4 x Pilot Tones

Data interface

CIN interface	RJ45, 10GBASE–T, IPv4, IPv6
Console	Micro-USB Serial Console
Remote logging	Syslog server

Power

Input voltage	120 – 240Vac (50 / 60Hz)

Environmental

Dimensions	19" x 20.3"x 3.5"; 2 RU (19") form factor
Operating temperature	0 to 40°C

Diagnostic tools

System logs	Detailed system logging as the system boots and becomes operational
TCP control plane captures	Detailed information about GCP and L2TP initialization and setup
RPD status files	CCAP Core Status DHCP Status RPD Channel Status Pseudowire Status Network Status