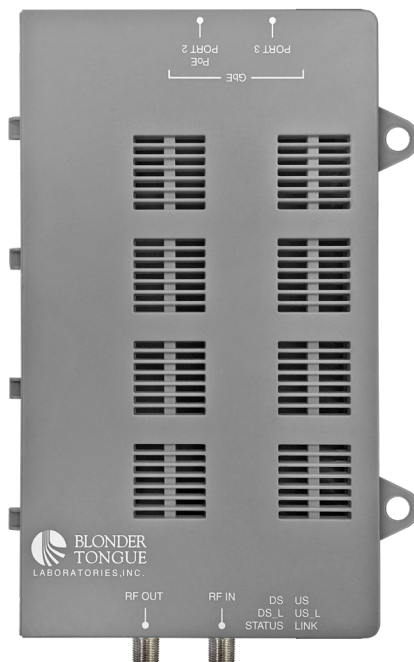# DMM-5500-PoE
DOCSIS 3.0/2.0 CABLE MODEM

KEY FEATURES

» DOCSIS 3.0/2.0 Compliant Modem

» Designed to combine with the LG STB 6500

» Built-in CATV Signal Splitter

» PoE and integrated Ethernet switch for Wireless Access Point (WAP)

» Supports Q-in-Q VLAN tagging for guest data delivery security

» Supports IEEE 802.1q transparent bridging among the DOCSIS STB and Ethernet networks

» Cost-effective solution for Lodging applications

PRODUCT OVERVIEW

The **DMM-5500-PoE** is a DOCSIS 3.0/2.0 compliant cable modem expansion module designed for compatibility and support with the LG STB 6500, serving Commercial TV and Lodging deployments. It features a built-in Ethernet switch, enabling the unit to communicate with the LG STB 6500. The module also offers two additional RJ45 switched ports with one supporting Power-over-Ethernet (PoE), providing Wireless Access Point (WAP) compatibility.

The DMM-5500-PoE also supports Q-in-Q VLAN tagging, which enables property system management the ability to isolate traffic by VLAN-to-VLAN, unicast, multicast, and port-to-port for the utmost in guest data delivery security and efficiency.

The cost-effective DMM-5500-PoE integrated solution delivers IP OTT communications, interactive guest services, and DOCSIS-based high-speed internet access (HSIA) over existing HFC and coaxial RF systems. This versatile technology supports guest mobile devices with the addition of a wireless access point (WAP), minimizing interconnect cabling and power requirements for cleaner, more reliable installations.

ORDERING INFORMATION

MADE IN USA

MODEL	STOCK#	DESCRIPTION
DMM-5500-PoE	**2332A**	DOCSIS 3.0/2.0 Modem Module with PoE and Ethernet Switch

DMM-5500-PoE
SPECIFICATIONS

BLONDER TONGUE LABORATORIES

RF DOWNSTREAM

Frequency Range	108 ~ 1002 MHz (DOCSIS)
Demodulation	QAM 64 / QAM 256
Max Data Rate	Up to 320 Mbps with 8 DS channel bonding (DOCSIS)
Bandwidth	6 MHz (DOCSIS)
Signal Length	-15 ~ 15 dBmv (DOCSIS)
Input Return Loss	> 7dB DOCSIS (108 ~ 1002 MHz)

STANDARDS / CONNECTIVITY / INTERFACES

Protocol Support	DOCSIS 3.0 / 2.0

DOCSIS RF INTERFACE

CATV In	1x "F" Type Female
CATV Out	1x "F" Type Female

ETHERNET INTERFACE

Port 1	1x Internal Connector (10/100 LAN) to LG-5500 STB
Port 2	1x RJ45 (10/100/1000) with PoE
Port 3	1x RJ45(10/100/1000) without PoE

CPEs

Max. # of CPEs	64 MAC Addresses
Filtering	LLC: 16 IP: 32

SERVICE IDENTIFIERS

Number of SIDs	16

FREQUENCY SEARCHING

Frequency Cache	5 entries
Channel Plan	1 MHz (DOCSIS)

ALARMS / MONITORING / CONTROL

Diagnostic LEDs	DS, DS1, US, US1, STATUS, LINK
Management	CMTS Control
Surge Protection	On RF Input, shall sustain at least 1kV

RF UPSTREAM

Frequency Range	5 ~ 85 MHz (DOCSIS 3.0)

MODULATION

TDMA	QPSK, QAM 8, QAM 16, QAM 32, QAM 64
S-CDMA	QPSK, QAM 8, QAM 16, QAM 32, QAM 64, and QAM 128

MAX DATA RATE

QPSK	320, 640, 1280, 2560, 5120 kbps
QAM 16	640, 1280, 2560, 5120, 10240 kbps

BANDWIDTH

TDMA	200, 400, 800, 1600, 3200, 6400 kHz
S-CDMA	1600, 3200, 6400 kHz

SIGNAL LEVEL

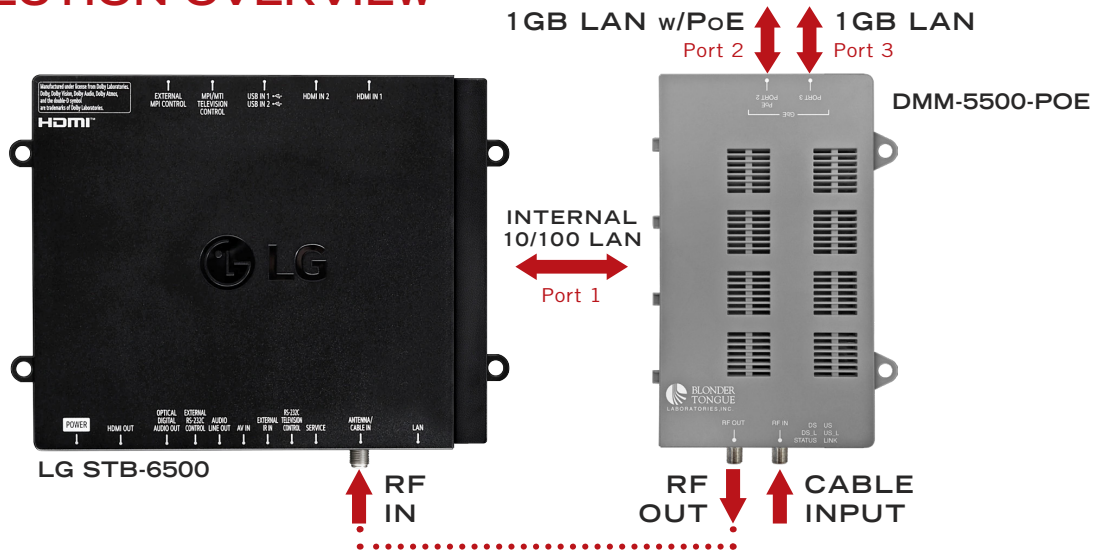|	
TDMA	+8 to +54 dBmV (QAM 32, QAM 64) +8 to +55 dBmV (QAM 8, QAM 16) +8 to +58 dBmV (QPSK)
S-CDMA	+8 to +53 dBmV (all modulations)
	Output level of CM can automatically be controlled by CMTS through power ranging function (1 dB steps)
Output Return Loss	> 7 dB DOCSIS (5 ~ 85 MHz)

GENERAL

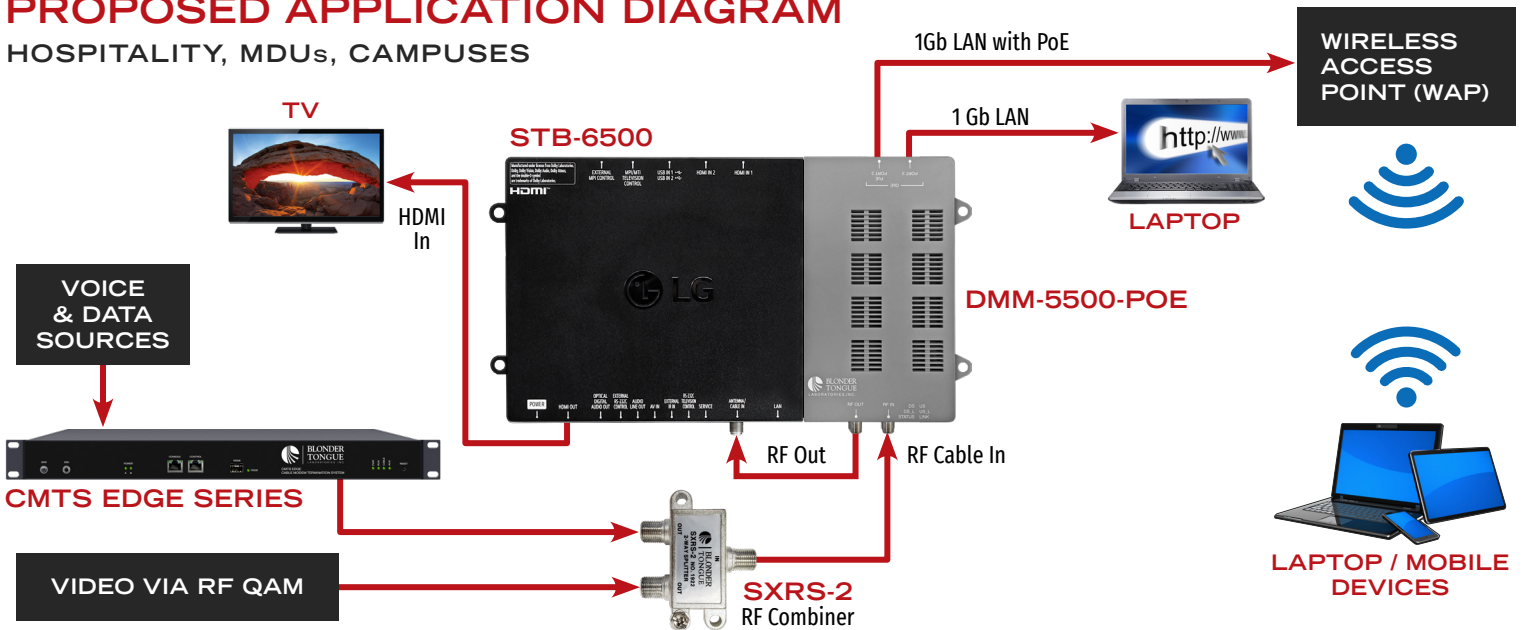|	
Dimensions (W x H x D)	4.44 x 1.13 x 7.25 in (112.71 x 28.58 x 184.15 mm)
Weight	9.2 oz (260 kg)
Power	12 VDC (from LG-6500 internal connector)
Power Dissipation	18.5 W (Typical Operation), 22.25 W (Maximum)
Operating Temp.	32 to 104 °F (0 to 40 ℃)
Storage Temp.	14 to 122 °F (-10 to 50 ℃)
Operating Humidity	10% to 90%, non-condensing

DMM-5500-PoE
DOCSIS 3.0/2.0 CABLE MODEM

I/O CONNECTION OVERVIEW

1GB LAN w/PoE — Port 2
1GB LAN — Port 3
DMM-5500-POE

INTERNAL 10/100 LAN
Port 1

LG STB-6500

RF IN

RF OUT   CABLE INPUT

PROPOSED APPLICATION DIAGRAM
HOSPITALITY, MDUs, CAMPUSES

1Gb LAN with PoE → WIRELESS ACCESS POINT (WAP)

1 Gb LAN → LAPTOP

TV

STB-6500

HDMI In

DMM-5500-POE

VOICE & DATA SOURCES

CMTS EDGE SERIES

VIDEO VIA RF QAM

RF Out   RF Cable In

SXRS-2
RF Combiner

LAPTOP / MOBILE DEVICES

ORDERING INFORMATION

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REV: 071823