DAMERY

OPAL-BK

DOCSIS 2.0 Field hardened CMTS

OPAL is designed to comply with the DOCSIS 2.0, 1.1 standards
Focused on the decentralised deployment

The field hardened DOCSIS systems are specifically designed for the streets and neighbourhoods where active equipments have to be installed in locations such as pedestal boxes, vaults, street cabinets and pole mount enclosures, as well as in conventional rooms such as basements, closets etc. These outside locations are subject to extremes of heat, cold, humidity, shock and vibration

- **DOCSIS compliance (Software DOCSIS 2.0/DOCSIS1.1)**
- **Interoperability with any DOCSIS compliant cable modem is assured**
- **Embedded system and based on "Broadcom" advanced PHY/MAC includes a fully digital receiver supporting TDMA, ATDMA**
- **Smart spectre impulse noise mitigation**
- **Integrated up converter | Digital Edge QAM**
- **Downstream modulation QAM 64 / QAM 256**
- **DOCSIS 1.x / 2.0 mixed logical channel**
- **SNR computing and Pre-equalizer, Ingress cancellation**
- **BPI baseline privacy encryption (128 Bit DES – coding)**
- **Separate interfaces for port-packet and management**
- **SNMP and Telnet access for software upgrade and configuration**
- **Quality of Service provisioning**
- **User admission**

It opens the door to dependable high-speed service such as high-speed data including controlled Quality-of–Service (QoS), Cable Telephony (VoIP), and Streaming Video services between cable modem subscribers and the backbone data network.

The smallest CMTS of the world with global dimensions of 80X250X100 mm and needing only 20W of power, **OPAL-BK** gives you the opportunity to optimize your data communications.

Use it in your optical nodes to provide higher bandwidth to your customers and make a better usage of your fibre connections to head-end.

Green, small, low power, scalable and cost effective solution

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Draft Specifications: Field Hardened OPAL-BK CMTS

RF Specification	Environmental	Security
Downstream ***Bandwidth:*** *6MHz or 8 MHz* ***Modulation:*** *64QAM, 256QAM* **Symbol rate:** *0.88 to 6.9 MSymb/s* ***Frequency Range:*** *88MHz to 860Mhz* *(Optional 37 or 44 MHz IF)* ***Spectral Occupancy:*** *64 QAM: 0.18 SRRC* *256 QAM: 0.12SRRC* ***Return Loss:*** *14 dB* ***Output Impedance:*** *75 oh s* ***Upstream*** ***Modulation:*** *QPSK, 8,16,32,64 QAM* ***Error Correction:*** *Reed Solomon* ***Frequency Range:*** *5MHz to 65Mhz agile, in 100Hz steps* ***Symbol Rate:*** *160. 320, 640, 1280, 2560 , 5120 ksym/s* ***Input Levels:*** *-16dBmV to +26 dBmV*	***Operating temperature*** *-10°C ~ 50°C* ***Storage temperature*** *-25°C ~ 60°C* ***Humidity*** *10 % ~ 90 % (non-condensing)* ***Network Management*** *SNMP* *MIB Group: MIB II, DOCSIS MIB, Vendor-Specific MIB* *DHCP Relay (future)* PPPoE *Telnet* ***Media-Access-Control (MAC)*** ***DOCSIS2.0, DOCSIS 1.1,*** *DOCSIS 1.0* ***IP Process*** IGMP snooping VPN transparent	*DOCSIS Baseline Privacy (BPI)* *Software upgradeable to BPI+* ***Power Supply*** +22,8V Min,+ 24V Nom, 25,2V Max *18W Min, 20W Nom, 22W Max* ***Network Interfaces*** ***Ethernet standard*** *(IEEE 802.3)* ***Ethernet interface****:* ➢ *1 x 100BaseT management* ➢ *1 x 1000BaseT / Base X Port-Packet* ***Types of interfaces****:* ➢ *special connectors for 100BaseT* ➢ *RJ 45 connector for 1000BaseT* ➢ *optical interface for 1000BaseX type of optical connector as required*

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