CISCO SPA-UBR10-DS-HD/6G

UBR10012 HIGH DENSITY DOWNSTREAM SHARED PORT ADAPTER

The Cisco 3 Gbps and 6 Gbps Wideband SPAs (Figure 1 and Figure 2) provide dramatically increased density, as compared to the Cisco 1 Gbps Wideband SPA for the Cisco uBR10012. Provisioned with the Cisco 3 Gbps Wideband SPA, the Cisco uBR10012 also provides cable operators with an easy, flexible upgrade path toward a Converged Cable Access Platform (CCAP) and an all-IP infrastructure.

SPECIFICATIONS

PRODUCT SPECIFICATIONS	
Physical	● Occupies one single half-height SPA slot (half slot) ● One SFP and two SFP+ connectors, which support three 1 Gigabit Ethernet modules or dual 10 Gigabit Ethernet modules ● Hot-swappable; either side sub slot (0 or 1) can be used ● Weight: 1.32 lb (0.6 kg) ● Dimensions (H x W x D): 6.69 x 0.75 x 6.69 in (170 x 19 x 170 mm)
Software compatibility	Compatible with Cisco IOS Software Release 12.2(33)SCH and later Cisco IOS Software Release 12.2 images supported on the Cisco uBR10012 Universal Broadband Router
Power	Unit power: 30W
Reliability and availability	Mean time between failures (MTBF): >500,000 hr
Environmental	● Operating altitude: -197 to 13,123 ft (-60 to 4000m) ● Conforms to IEC/EN/UL/CSA 60950 requirements up to 2000m ● Storage temperature: -4 to 149°F (-20 to 65°C) ● Operating temperature, nominal: 41 to 104°F (5 to 40°C) ● Storage relative humidity: 5 to 95% ● Operating relative humidity: 10 to 90%
Supported SFP[1]	**10 Gigabit Ethernet model** ● SFP-10G-SR-X ● SFP-10G-LR-X **1 Gigabit Ethernet model** ● SFP-GE-T ● SFP-GE-Z ● GLC-SX-MMD ● GLC-ZX-SMD ● GLC-LH-SMD
Regulatory compliance	Safety ● UL60950 and CAN/CSA-C22.2 No. 60950 ● IEC/EN 60950 ● 73/23/EECIEC/EN 60950 ● AS/NZS 60950 Electromagnetic Emissions ● EN55022: Class A ● CISPR 22: Class A ● CFR 47 Part 15 Class A ● ICES -003 ● VCCI ● AS/NZS:CISPR22 ● CNS-13438 Class A Electromagnetic Immunity ● EN55024 ● EN61000-3-2 ● EN61000-3-3 ● EN61000-4-2: ESD immunity ● EN61000-4-3: Radiated RF field immunity ● EN61000-4-4: Immunity to electrical fast transients ● EN61000-4-5: Surge immunity ● EN61000-4-6: RF conducted immunity

Network Equipment Building System (NEBS)	Designed to meet the requirements of: ● Level 3 ● GR-1089 Core 2011
Mechanical	● IEC 68-2-1, IEC 68-2-2, IEC 68-2-56: Operational temperature and humidity ● IEC 68-2-41: Operational Altitude ● IEC 68-2-27: Operating shock ● IEC 68-2-64, IEC 68-2-6, IEC 68-2-47: Operating and nonoperating vibration ● IEC 68-2-40: Nonoperating altitude ● IEC 68-2-27, IEC 68-2-32: Nonoperating mechanical shock ● IEC 68-2-1, IEC68-2-2: Nonoperational Temperature ● IEC 68-2-3: Nonoperating humidity ● IEC 68-2-14, IEC 68-2-33: Nonoperating temperature shock
LEDs	● One SPA status LED (amber or green): Off indicates that power is off, or SPA is in reset status. Solid amber indicates that the SPA power is on and good, and the SPA is being configured. Solid green indicates the SPA is ready and operational ● One license LED (green): Solid amber indicates that there is no license installed or invalid license. Flashing green indicates the license is available for 1~71 channels. Solid green indicates that the SPA has been equipped with full license (72 channels) ● One status LED for each 10 or 1 Gigabit Ethernet interface (amber or green): Off indicates that the optical module is not present. Solid amber indicates that the optical module is detected by hardware. Solid green indicates the port is linked with the opposite. Flashing green indicates that there is traffic through the optical links
10 and 1 Gigabit Ethernet optical connectivity options[1]	● GLC-SX-MMD (SFP-GE-S) optics support a maximum distance of 1804 ft (550m) ● GLC-LH-SMD (SFP-GE-L) optics support a maximum distance of 6.21 mile (10 km) ● GLC-ZX-SMD (SFP-GE-Z) optics support a maximum distance of 43.5 mile (70 km) ● SFP-GE-T support a maximum distance 328 ft (100m) ● SFP-10G-SR-X optics support a maximum distance of 984 ft (300m) ● SFP-10G-LR-X optics support a maximum distance of 6.21 mile (10 km)

ORDERING INFORMATION

PRODUCT NAME	PART NUMBER
3G SPA Hardware	
UBR10012 High Density Downstream Shared Port Adapter; Base HW	SPA-UBR10-DS-HD
UBR10012 High Density Downstream Shared Port Adapter; Base HW Spare	SPA-UBR10-DS-HD=
Spare SPA w/ 0 License	SPA-UBR10-DS-SP=
6G SPA Hardware	
UBR10012 High Density Downstream Shared Port Adapter 6G	SPA-UBR10-DS-6G
UBR10K High Density Downstream Shared Port Adapter 6G, SPARE	SPA-UBR10-DS-6G=
Spare 6G SPA w/ 0 License	SPA-UBR10-6G-SP=
Software License	
1 DS license: Must configure with SPA-UBR10-DS-HD only	SWLIC-SPA-UBR10-DS
1 Count DS license for SPA	L-SPA-UBR10-DS
PAK Container For SPA	L-SPA-UBR10-SWLIC=
SFP Optics	
1000BASE-ZX Gigabit Ethernet SFP (DOM)	SFP-GE-Z
1000BASE-T SFP (NEBS 3 ESD)	SFP-GE-T
1000BASE-SX SFP transceiver module, MMF,850nm, DOM	GLC-SX-MMD
1000BASE-ZX SFP transceiver module, SMF, 1550nm, DOM	GLC-ZX-SMD
1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	GLC-LH-SMD
10G SFP+ Optics	
10GBASE-SR SFP Module for Extended Temp range	SFP-10G-LR-X
10GBASE-SR SFP Module for Extended Temp range	SFP-10G-SR-X