



# ASCENT PRODUCT CATALOG

2024 ~ 2025

- Data Center
- Optical Transceiver
- FTTx/XGS PON
- Video Overlay
- HFC
- Passives
- IPTV & STB



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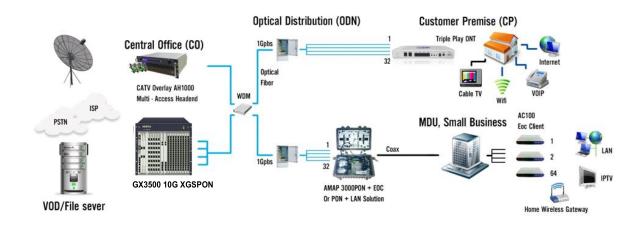


# Portfolio of FTTx, DCI & HFC Products

# Advanced, scalable, intelligent, last mile fiber technology platforms for MSOs, Network Operators, and Services Providers of all size

Next-Generation Network has growing customer demand for AI enbaled IPTV, VoD, HSD, VoIP, Wireless and smart IOT services. To stay competitive, operators need a network solution that can maximize their existing infrastructure, and at the same time has the flexibility to scale up for higher bandwidth next-generation services. Ascent Communication Technology (ACT) network solution has got the answer with a comprehensive product portfolio. Products have been designed with today and tomorrow networks in mind, with ease of technology migration and network upgrade. ACT products cover technologies from Data Center Interconnect (DCI), FTTx (Active Ethernet, XGS PON, PON+EoC), Wirless (b/g/n/ac/ax), HFC Deep Fiber, to smart home, smart community and city networks.

ACT understands each network has a unique requirement. ACT advises operators the best migration technology that minimize capital investment while provide the required bandwidth for next-gen services.



# **Data Center Interconnect Solution**



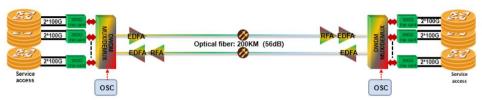
## A1600E Data Center Interconnect (DCI) Solutions

#### **Features**

- Hot-swappable Modular design, supports smooth upgrade,
- Bi-directional 1.6 Tbps service transmission
- Up to 16\*100G client-side access, 8\*200G and 4\*400G line-side transmission
- Transmission capacity up to single fiber
   19.2Tbps (single lambda 200G\*96CH) or
   25.6Tbps (single lambda 400G\*64CH)
- Supports line side 100G/200G/400G adjustable rate and wavelength, and can be used with optical layer OA, OLP, OSC, OCM, OTDR equipment.
- CFP2-DCO most advanced single-carrier 7nm coherent DSP and photonic integration technology,
- Ultra-low energy consumption 12W/100G with multi-carrier Super Channel technology
- Standard DCI rack design: with dual power supply 1+1 hot backup,
- Complete network management protocol:
   WEB, SNMP, CLI, TLI and other network
   management interfaces.
- Supports SDN architecture network management design: with open Netconf/Yang model



#### **Application Diagram**





#### **Specifications DCI BOX**

Maximum Capacity of Single System

Wavelength (Frequency) Range

**Service Access Types** 

**2U** 4CH, 8CH, 16CH, 40CH, 48CH, 80CH, 96CH

DWDM: 1529.16 nm to 1567.14 nm

(191.3 THz to 196.05 THz) OTN: ODU2, ODU2e, ODU3, ODU4

Ethernet: 10GbE, 100GbE, 100GE

FlexE

SONET: OC-192 SDH: STM-64 OTU2, OTU4

Physical Network

Topology

Working Temperature -10°C
Storage Temperature -40 °C
Relative Humidity 5 % to

Dimensions (W×H×D)
Power Supply

Chain type, star type, ring type

-10°C to +70 °C -40 °C to +80 °C

5 % to 95 % no condensation 440 mm × 88 mm × 420

 $220\ V_{\text{AC}}\text{, }50\text{Hz}$ 

-48  $V_{\text{DC}}$  and 240V HVDC power supply

(optional)

Safety and EMC Complies with FCC, UL, CE, TUV, CSA

standards

Power Consumption <800 W

40

4CH, 8CH, 16CH, 40CH, 48CH, 80CH,

Compliance with ITU-T G.692, ITU-T G.695 standards.

PDH, EPON, GPON,

SDH: STM-1/STM-4/STM-16/STM-

64/STM-256

SONET: OC-3/OC-12/OC-48/OC-192/OC-768, FE, GE, 10GE, 40GE, 100GE, CPRI 1 to 7, POS, FICON,

ESCON, CATV

Chain type, star type, ring type

-10 °C to +70 °C -40 °C to +80 °C

5% to 95% no condensation. 482 mm × 177 mm × 350 mm

220V<sub>AC</sub>, 50 Hz -48V<sub>DC</sub> (optional)

Complies with FCC, UL, CE, TUV, CSA

standard <300 W



# **Data Center Interconnect Solution**



### DCI Electrical Layer Equipment – 400G Line Card

#### **Features**

- Compatible with 100-400G unidirectional or bidirectional transmission
- Support single OC channel 1-4 channels 100G to 1 channel 400G transmission
- Support flexible service access functions:
   100GE, 100GE KR4, OTU4, 100G FlexE and
   OTUCn
- The client side supports multiple module interface types: 100G SR4/CWDM4/LR4/PSM4
- Support Ethernet RMON performance statistics, LLDP monitoring, constellation map monitoring, DM delay and PRBS detection function



### 10\*10G+2\*100G to 200G Line Card

#### **Features**

- Supports 100G or 200G unidirectional or bidirectional transmission
- Supports 10G-100G service access
- Supports FlexGrid 96 waves with adjustable wavelength
- Supports flexible service access functions:
- 10G: 10GE/10G WAN/10G LAN/SDH/OTU2/OTU2,

- 100G:100GE, 100GE KR4, 100G FlexE, OTU4,
   OTUCn
- Client side supports multiple module interface types: 100G SR4/CWDM4/LR4/PSM4
- Support Ethernet RMON performance statistics, LLDP monitoring, constellation graph monitoring, DM delay and PRBS detection functions, OTN PM and SM performance statistics and other functions



# **DCI Optical Layer Device - Optical Amplifier card**

- Supports setting pump switch, AGC mode and APC mode (input and output optical power adjustable)
- Can monitor: pump drive current, pump output power, pump switch, pump temperature, input optical power, output optical power, module temperature
- Supports power amplification and preamplification of the combined signal of optical terminal stations, and has built-in 1 direction OSC channel



# **Data Center Interconnect Solution**



# DCI Optical Layer Device - Optical MUX/DEMUX

#### **Features**

- Supports multiplexing and demultiplexing of 48-96 DWDM optical signals
- Supports DWDM system smooth upgrade to 96 wave customization
- Supports online upgrade and expansion, simple maintenance, convenient operation
- Low insertion loss, high channel isolation, high reliability and stability, in accordance with GR-1221 standard



# DCI Optical Layer Device – Optical Time Domain Reflectometer (OTDR) Card

#### **Features**

- Large dynamic range
- Event dead zone and attenuation dead zone are low
- High test accuracy
- Fast data transmission based on Ethernet interface
- Real-time test refresh rate in milliseconds
- Automatic monitoring of communication light
- Supports unified network management platform based on SNMP, network management mode CLI (telnet and console),
   Web



# DCI Optical Layer Device – Wavelength Selective Switch (WSS) Card

- Twin 1x9 191.3-196.1Thz supports Flex grid.
- Reconstruction time ≤ 3s.
- Automated optical alignment and assembly (high throughput, multi-parameter optimization, high accuracy/repeatability, operator independence).
- An optional integrated PLC provides perchannel power control based on OCM.
- Equalize, attenuate, block, switch/route any or all wavelengths.
- Flat wide passband, low dispersion cascading.
- Support unified network management platform based on SNMP, network management mode CLI (telnet and console),
   Web. on Ethernet interface



# **Optical Transceiver Solution**



#### **800G Transceivers**

#### **Features**

- Supports 850Gbps
- Single 3.3V Power Supply
- Up to 10km over SMF with KP4 FEC supported at the Host side
- Dual duplex CS connector
- 8x106.25Gbps (PAM4) electrical interface
- PIN and TIA array on the receiver side
- Power dissipation < 16W</p>
- Safety Certification: TUV/UL/FDA\*1
- RoHS Compliant
- Application for 1x800G Ethernet, 2x400G
   Ethernet, 2x200G Ethernet



#### 400G & 100G Transceivers

#### **Features**

- Up to 120 km transmission distance
- QSFP28 MSA compliant
- QSFP-DD MSA compliant
- 100G Lambda MSA 400G-LR4 compliant
- Compatible with Ethernet 100GBASE-SR4
- 3.3 V operating voltage
- 100G Lambda MSA 400G-LR4 compliant
- Digital diagnostics
- RoHS compliant



#### 40G & 25G Transceivers

#### **Features**

- Up to 120 km transmission over single-mode fiber (SMF)
- QSFP+ MSA compliant
- 40GBASE-SR4 compliant

- Hot-pluggable
- Digital diagnostics
- RoHS compliant



### **10G Transceivers**

#### **Features**

- SFP+ and XFP transceivers
- 3.3 V operating voltage
- Up to 120 km transmission distance
- Wide operating temperature range
- Digital diagnostics
- Bi-directional SFP+ transceivers available



#### **SFP Transceivers**

- 3.3 V operating voltage
- Up to 120 km transmission distance
- Wide operating temperature range
- Metal enclosure for lower EMI
- Digital diagnostics
- Compliant with SFF-8472



# **Optical Transceiver Solution**



# **Direct Attach Twinax Cables (DACs)**

#### **Features**

- 100 Gigabit Ethernet
- Fiber Channel over Ethernet
- InfiniBand EDR

- Data storage and communication industry switch/router/HBA
- Enterprise network SAN
- Data Center Network



## **Active Optical Cables (AOCs)**

#### **Features**

- Full Duplex 4 channel 850nm parallel active optical cable
- Up to 11.1 Gbps per channel
- Up to 300 m on OM3 MMF

- 40G Ethernet
- QSFP+ MSA compliant
- RoHS compliant
- <1.5 W power dissipation per cable end</p>



## **DAC/AOC Breakout Cables**

#### **Features**

- 3.d40G to 10G Ethernet Interoperability
- Aggregate 4 SFP+ 10G Into
- Single QSFP+ 40G Interface
- 150m links on OM4 multimode fiber
- Electrically hot-pluggable
- QSFP+ module compliant to SFF 8436 MSA
- SFP+ module compliant to SFF 8431 MSA
- RoHS Compliant



### **QSFP to SFP/SFP+ Adapter Module**

- 3dTrouble-free installation
- Compliant to industry standards: QSFP+ MSA SFF-8436 / SFP+ MSA SFF-8431
- Precision process control
- All-metal housing for superior EMI performance
- 100 Ω differential impedance system
- Low insertion loss
- Low crosstalk
- Secure latching mechanism
- RoHS compliant



# **XGSPON/GPON OLT Solution**



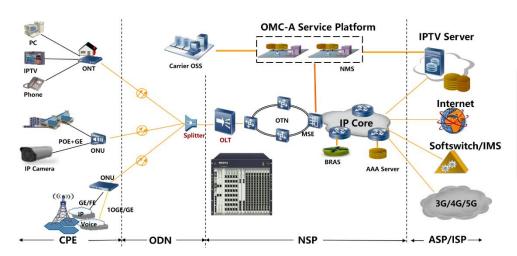
#### **GX3500 10G XGSPON OLT Solution**

#### **Features**

- ITU-T G.984/G.987/G.988/G.9807 compliant 10gbps/2.5gbps downstream and 10Gbps/2.5bps/1.25Gbps upstream PON interface
- Hybrid platform for GPON/XG(S)PON technology
- Power/CSM redundance, PON protection
- 272\*GPON/208\*XG(S)PON/240\*XG(S)PON &
   GPON combo PON ports in 11U chassis
- Hot swap modular design
- Advanced L2/L3 functions
- Abundant QoS functions
- Unified NMS platform
- Remote provision and management



#### **Application Diagram**





#### **Specifications**

GX3500-S Series	<b>GX3500-S17</b> 11U, 21-inch	<b>GX3500-S15</b> 11U, 19-inch	<b>GX3500-S8</b> 7U, 19-inch	<b>GX3500-S2</b> 2U, 19-inch
<b>Switching Capability</b>	7.2 T (CSM35)	7.2 T (CSM35)	7.2 T (CSM35)	960G (CSM25)
Max Slot Bandwidth	200G	200G	200G	200G
Power Supply	[	OC (1+1 redundancy)		DC/AC (1+1 redundancy)
Max GPON/Slot	16	16	16	16
Max XG(S)PON/Slot	16	16	16	16
Max XG(S)PON	16	16	16	16
COMBO/Slot				
Uplink (CSM)	2*4*25GE/10GE	2*4*25GE/10GE	2*4*25GE/10GE	2*4*10GE/GE





# XGSPON/GPON OLT Solution



#### 1RU GX3100 10G XGSPON OLT

#### **Features**

- Supports rich layer 2/3 switching features and flexible management methods
- Supports multiple link redundancy protocols such as FlexLink/STP/RSTP/MSTP/ERPS/LACP
- Hybrid platform for GPON/XG(S)PON technology
- Redundant power, PON protection
- Up to 16x XG(S)PON & GPON combo PON ports in 1U pizza box
- Hot-swappable modular design
- Abundant QoS functions
- Unified NMS platform
- Remote provision and management
- Supports power failure alarm



#### **Specifications**

GX3108C GX3116

 Switch Capacity
 440 Gbps
 300 Gbps

 Service Ports
 8\*XG(S)PON&GPON COMBO port
 16\*XG(S)PON&GPON COMBO port

8\*10GE/GE SFP 2\*100GE

2\*100G QSFP28

Dimensions (W×H×D) 440 mm × 270 mm × 44 mm

482 mm × 286 mm × 44 mm

4.8 kg 250 W



#### **AG3242A 10G XGSPON ONT**

#### **Specifications**

Interface 2\*POTS + 4\*GE + 2.4G & 5G WiFi + 1\*USB3.0

Indicators Power + PON + LOS + Internet + 4\*LAN + 2\*Phone +

WiFi + WPS + USB

Power Adapter Input 100 to 240V AC, 50/60 Hz

Power Adapter Output 12 V, 3 A

Buttons Power + Reset + WPS

**Dimensions (W×H×D)** 242 mm × 162 mm × 30 mm (without base)

Operating Temperature -10 °C to +55 °C

**Operating Humidity** 5 % RH to 95 % RH (non-condensing)



## P2500 5-Wavelength XGPON Power Meter

- High-definition color LCD screen
- Sub-wavelength test of high isolation optical components
- Reference value can be set, with alarm function
- Multiple adapter configurations
- Store and adjust 999 groups of test data
- Shutdown memory, multiple power supply options available
- Custom visual light source function
- Humanized backlight adjustment and automatic shutdown function



# **GPON Subscriber ONT & MDU**



### **AP200 & AP600 Series GPON ONT**

#### **Features**

- P2MP residential/business gateway
- ITU-T G.984 compliant GPON
- Strict SLA for tiered services
- CATV RF receiver (Video Overlay)
- 2 POTs VOIP, 4 data ports

- IEEE 802.11b/g/n Wireless-LAN
- Enhanced security with 128-bit AES
- Layer 2 bridging and VLAN
- Easy home installation
- Web interface and SNMP management



#### **AP200 Single Family ONT Specifications**

 AP204
 AP224 AP224-N

 Ports
 1\*GPON uplink port
 1\*GPON uplink
 1\*GPON uplink

 4\*10/100/1000BASE 4\*10/100/1000B 4\*10/100/1000B-TX

 TX
 TX
 2\*VOIP, 1\*WLAN

2\*VOIP

Connector Type Default SC/APC, Optional SC/PC

Wavelength 1490nm/1310 nm

Features Layer 2 bridging, VLAN, NAT/NAPT, IGMP Multicast, QoS, PPPoE, IPv6,

Web Mgmt

Dimension(D×W×H) 110mm×160mm×27mm

Weight <1.5kg

VoltagePower adaptor(100 to 220AVC input-12VDC/2A output)Max Power Consumption<12W</th><15W</th><17W</th>

Working Temp  $0 \, ^{\circ}\text{C} \text{ to } 50 \, ^{\circ}\text{C}$ 



### **AP600 MDU ONT Specifications**

 AP224-TV-N
 AP624

 Port
 1\*GPON uplink port
 1\*GPON uplink port

 4\*10/100/1000BASE-TX
 8 \*1000BASE-TX

 2\*VOIP, 1\*CATV RF
 16 \* POTS

 1\*WLAN
 WiFi

Connector Type Default SC/APC, Optional SC/PC

Wavelength 1490nm/1310 nm

Features Layer 2 bridging, VLAN, NAT/NAPT, IGMP Multicast, QoS, PPPoE,

IPv6, Web Mgmt

Dimension(D×W×H) 130mm×180mm×35mm; 400mmx220mmx44mm

**Weight** <1.5kg; <2.5kg

Voltage Power adaptor(100 to 220AVC input-12VDC/2A output)

Max power consumption <25W <37W

Working temp 0 °C to 50 °C



# **Active Ethernet (P2P) Headend**



### **AE8000 High Density P2P Headend Core Switches**

#### **Features**

- Gigabit Ethernet P2P Headend
- High performance L2/L3/L4 switching with IPv6 supported
- High Density up to 336 ports at 1Gb/s
- Switching fabric with up to 2.6 Tb/s Backplane
   Capacity
- Up to 4 x 10 Gbps uplinks with link aggregation
- Congestion-free switching for all ports
- High-level security supporting extended ACL,
   DAP, RADIUS, and Intelligent ARP
- Supports Active Ethernet technology with FE and GE subscriber lines
- Strict QoS with 802.1p, Diffserv, and L2-L4 flow classification

- IPTV and Video Overlay supported
- Wire-speed switching and aggregation with up to 384 Gbps capacity
- Dual hot-swappable redundant controller cards
- Dual hot-swappable power supplies for redundancy
- Shelf management for monitoring and control via network. Both CLI and SNMP access
- Advanced routing and switching features
- RADIUS-based broadband management and customer SLA control
- Low power consumption to save maintenance and services cost

















#### **Specifications**

	AE8006	AE8009	AE8012
Available Slots	3	6	10
Service Line Cards	2	4	8
Backplane Bandwidth	768Gbps	1.5Tbps	2.6Tbps
Exchange Capacity	384G	768G	1.5T
Packet's Forwarding Rate	143Mpps	286Mpps	572Mpps
Maximum # of 10G ports	8	16	32
Maximum # of 1G ports	96	192	384
Maximum # of 100M ports	96	192	384
Physical Size (WxDxH)	482×548×266mm	482×548×399mm	482×548×533mm
Power Consumption	600W	600W	1000W

#### Service Line Cards (w/o SFP or XFP)

	FE Ports	GE Ports	Combo (SFP&TX)
AE80-24FE-SFP-2GE	24 FE SFP	-	2 GE Combo
AE80-24GE-SFP	-	20 GE SFP	4 GE Combo
AE80-24GE-TX	-	20 GE TX	4 GE Combo
AE80-48FE-TX	48 FE TX	-	-
AE80-48GE-TX	-	48 GE TX	-
AE80-48GE-SFP-MPLS	-	48 GE SFP	-
AE80-1TE-XFP	-	1 10GE XFP	-
AE80-2TE-XFP	-	2 10GE XFP	-
AE80-4TE-XFP	-	4 10GE XFP	-
AE80-SC-096	AE8000 Switching Control Unit - for AE8003/AE8006, 96G		
AE80-SC-192	AE8000 Switching Control Unit - 192G		
AE80-SC-384	AE8000 Switching Control Unit - 384G		

# **Active Ethernet (P2P) Headend**



### **AS3000 1RU P2P Headend Aggregation Switches**

#### **Features**

- Gigabit Ethernet P2P Headend
- High performance L2/L3 switching with IPv6 supported
- Switching fabric Supporting Up to 280 Gbps passive backplane Capacity
- Up to 48 x 10 Gbps uplinks with SFP+ ports with link aggregation
- High density Gigabit Active Ethernet FTTH platform supports up to 48 subscribers per 1RU chassis
- High-level security supporting extended ACL,
   DAP, RADIUS, and Intelligent ARP defence
- Supports Active Ethernet technology with FE and GE subscriber lines

- IPTV and Video Overlay supported
- Strict QoS with 802.1p, Diffserv, and L2-L3 flow classification
- Wire-speed filtering and forwarding with up to 480 Mbps capacity
- Shelf management for monitoring and control via network. Both CLI and SNMP access
- Advanced routing and switching features
- RADIUS-based broadband management and customer SLA control
- Low power consumption to save maintenance and services cost
- RPS redundant power interface



#### **AS3600 Full 10G Switches Specifications**

	AS3624S
10G bps ports	24 SFP+
40G bps ports	2 QSFP
Combo 1G TX & SFP ports	N/A
Backplane bandwidth, bps	640G
Throughput, pps	480M

Physical Size (WxDxH) 437.5×360×44 mm

Power Consumption 120W



#### AS3200 1G/10G Switches Specifications

	AS3232S
1GE bps SFP ports	24 SFP
10GE bps SFP+ ports	8 SFP+
1GE bps TX ports	8 TX
Backplane bandwidth, bps	192G
L3 Forwarding Rate, pps	77M

Physical Size (WxDxH) 442.5×375×44 mm

Power Consumption 80W

### AS2300 1G/10G Switches Specifications

	AS2328S
Processor	MIPS32
10/100/1000 Base-T Ports (TX)	0
1000Base-X Ports (1G SFP)	28
Combo TX/SFP 1G ports	4
Switching Capacity	64 Gbps
Packet Forwarding Rate	42 Mpps
Dimensions (WxDxH)	440x180x44 mm
Power Consumption	<45 W



# **FTTH Video Overlay Gear**



### AT5200 FTTX Multiport EDFA (PON OLT & COM)

#### **Features**

- Video-Overlay for FTTx applications
- Up to 64 output ports
- Low noise, high performance
- Intuitive front panel LCD display
- Optional built-in optical switch
- Redundant power
- Universal management through craft interface and SNMP



#### **Specifications**

Wavelength 1540 to 1563nm Input power, dBm -10 to 10, 3dBm typical Maximum output power, dBm 19dBm per port Output Power Stability, dB  $\pm 0.5$ 

Noise Figure, dB (PIN=0dBm) <5 (o/p<19dBm)

**Power Supply** 90 to 265 VAC or 30 to 72 VDC Dimensions (W x D x H) 483x368x88 mm, 19x14.5x3.5 inch Wavelength

1540 to 1563nm



#### **Features**

- 1.2 GHz FTTG optical receiver **Optional FTTH PON upgrade port**
- High output 82dBuV Low power consumption
- **Compact housing LED** status indicators
- **Optical AGC**



**Optical Wavelength (Forward Path)** 1540 to 1560nm, 1550nm center

**RF Bandwidth** 47 to 1218MHz **Optical Input Power** -12 to +3dBm **Output Level** 82dBmV (@-2dBm)

**CNR** 48.5dB (60ch PAL loading, -8dBm receive)

CSO/CTB -66dBc/-60dBc **Operating Temp** -40 to 60 °C

Dimensions (W x D x H) 59 x 98 x 23 mm, 2.3x3.9x0.9 inch



### FTTH PON, RFoG WDM Optical Passive Specification

1260 nm to 1360 & 1480 to 1620 nm **Optical wavelength** 

1540 to 1560nm (CATV)

**Channel spacing** 20 nm Channels ≥14nm

CW±7.5nm, DWDM ITU ±0.25nm Channel pass band

**Pass band flatness** 

Insertion Loss 1x24 Coupler 16.7dB (CATV - COM), 0.8 (COM - PON)

Insertion Loss 1x32 Coupler 18dB Insertion Loss 8 ch 2.5 dB Max Adjacent channel isolation ≥ 35 dB (CATV – COM)

Directivity ≥ 50 dB **Return loss** ≥ 45 dB Operating Temp, °C -10 to 70 Storage Temp, °C -40 to 85

**Power Supply** 90 to 265 VAC or 30 to 72 VDC

Operating relative humidity, % 5 to 95

Dimensions (W x D x H) 1RU: 470x225x44 mm, 19x9x1.75 inch





# Wireless Access Point (AP)



# **WSC710 Enterprise-Level Intelligent WAC Controllers**

#### **Features**

- Wireless Access for FTTx applications
- Centralized wireless network management
- Seamless roaming characteristics
- Secure access wireless network
- Layer-2 and layer-3 roaming functions
- All-round QoS mechanism
- Diversified connection and authentication

interface

#### **Specifications**

 Model
 WSC710-X32B

 Ports
 1 × CON

 1 × USB 2.0
 2 × CF Comba

2 × GE Combo 8 × GE Base-T ports

Operation Keys Resc

AP AccessBuilt-in  $32 \times \text{Lic}$ User AccessRecommend  $\leq 1K$ Data Throughput $\geq 512 \text{ Mbps}$ 

**Dimensions (W×D×H)** 300 mm × 200 mm × 44 mm

Weight≤1.8 kgPower Supply220 V ACAverage Power Consumption≤36 WOperating Temperature0 °C to 50 °C

Operating Humidity 5% to 95 % RH (non-condensing)



# **WAP310 Ceiling Mounted Intelligent Wireless Access Point**

#### **Features**

- 1 GHz FTTG optical receiver
- High output 82dBuV
- Compact housingOptical AGC

- Optional FTTH PON upgrade port
- Low power consumption
- LED status indicators



#### **Specifications**

**Operation Keys** 

 Model
 WAP310-GE

 Ports
 1 × GE WAN port

 2 × GE LAN ports

RESET key

Wireless Modules 2 × wireless modules 802.11a/b/g/n/ac

802.11a/b/g/n/ac MIMO 2 × 2 Built-in antenna 3 dBi

Antenna Built-in antenna 3 o
Output Power 24 dBm/path

Size180 mm × 180 mm × 25 mmOperating Humidity5% to 95 % RH (non-condensing)



# **AH1000 Converged High Density Headend Platform**

#### **Features**

- High density modular design
- Up to 16 modules in 3RU chassis
- Comprehensive modules (1310 & 1550nm)
- Low power consumption

- FTTH Video Overlay applications
- Redundant power

19" EIA, 3RU

0 to 50

-40 to 70

- USB local monitoring
- Universal Mgmt via SNMP interface

#### **Specifications**

Chassis
Operating Temp, °C
Storage Temp, °C

Operating relative humidity, %5 to 85 non condensingDimensions (W x D x H)483x420x176 mm



### **AH10-PS-AC or DC Power Supply**

#### **Features**

- 90 to 264 VAC wide range
- 24 VDC/300W output
- Hot-swap capability
- Built in power sharing circuit
- Auto-recovery short circuit protection
- Integrated fans for localized cooling
- LEDs for module status indication

85 to 264 VAC IEC Male or 36 to 60 VDC

### **Specifications**

Input AC/DC VAC
Power Consumption W
Power Efficiency %

**Power Efficiency** % 86 % @ 230 VAC or 84 % @115VAC to 60 VDC

Short Circuit Protection

Dimensions (W x D x H) 155x300x45mm



### **AH10-SMM System Management Module**

### **Features**

- Short circuit protection
- USB Port for local monitoring and setting
- RJ45 for communication with SNMP
- LEDs to indicate data access activity
- Hot-swap design

24 VDC / 300W

Firmware field upgradeable

### Specifications

Front LED SNMP Interface Power Consumption W Dimensions (W x D x H) Weight, kg User Friendly Front Panel LED RJ45, 10Mbps 5 Max

483x420 x44mm

1 kg





#### AH10-F3ST AH1000 Forward 1310 nm Transmitter

#### **Features**

High performance distributed feedback (DFB)

laser with pre-distortion circuit

Hot-swap capability

Bandwidth 45~1218 MHz

Automatic/manual gain control

Broadband and narrowband input

RF input test point

Short circuit protection

#### **Specifications**

Optical Wavelength1310±20nm or CWDMRF bandwidth47 to 1218 MHz

**Optical Output Power** 2, 4, 6, 8, 10, 11, 12, 13, 14, 15dBm

CNR 52dB (77ch NTSC, 15km fibre, -1dBm receive)

 CSO /CTB
 -63dBc/-67dBc

 RF Input Level
 15±4dBmV

 Dimensions (W x D x H)
 25x380x138 mm



### AH10-ARQR-ST/RD/RFoG AH1000 Quad Return RX

#### Feature

Four independent return path receivers

Hot-swap capability

Bandwidth 5~300 MHz

105dBuV output level

- 18 to 2dBm input optical power
- RFoG version with EIN 4 pA /vHz
- Manual attenuation control
- RF output test point

#### **Specifications**

**RF Attenuation** 

Wavelength 1200 to 1620nm

Optical Input Ports

Optical Input Level-18 to 2dBm, -27 to -13dBm (RFoG)RF Output Level (RD)105dBuV (-7dBm with 16 % OMI, 0dB att)RF Output Level (RFoG)90dBuV (-13dBm with 10 % OMI, 28dB att)

30dB

CNR 50dB (0dB Pad, OMI = 16 %, -7dBm receive)

 CSO /CTB
 -55dBc/-60dBc

 Power Consumption
 ≤10 W (14W RFoG)

 Dimensions (W x D x H)
 25x380x138 mm



#### AH10-F5ST AH1000 1550nm Direct Mod Transmitter

#### **Features**

High performance distributed feedback (DFB)

laser with pre-distortion circuit

Bandwidth 47~1003 MHz

Automatic/manual gain control (AGC/MGC)

- Broadband and narrowband input
- RF input test point
- OMI adjustment range: 10dB
- MGC scope: ±5dB

#### **Specifications**

 Optical Wavelength
 1550±10nm, ITU Ch

 RF bandwidth
 47 to 1218MHz

 Optical Output Power
 6, 8, 10dBm

CNR 50dB (77ch NTSC, 20km fibre, -1dBm receive)

 CSO/ CTB
 -58dBc/-65dBc

 RF Input Level
 15±4dBmV

 Dimensions (W x D x H)
 25x380x138 mm





### AH10-EDFA AH1000 Optical Amplifier

#### **Features**

- Video-Overlay for FTTx applications
- Cost effective single or dual output port
- Performance with pre-distortion circuit
- Redundant power supply

- Intuitive front panel LCD display
- Adjustable SBS
- Universal management through craft interface and SNMP

#### **Specifications**

 Wavelength
 1540 to 1560nm

 Input power
 -3 to 10 dBm

 Output power
 14dBm to 23dBm

Output Power Stability ±0.5dB

**Noise Figure, dB (PIN=0dBm)** <5 (o/p<20dBm), <5.5 (o/p<23dBm)

Return Loss 40dB

Dimensions (W x D x H) 25x380x138 mm

### AH10-RFAF AH1000 RF Amplifier

#### **Features**

- Forward RF single amplifier
- High linearity and low noise
- Front panel test point
- Single output port with up to 30dB gain
- 47 to 1218MHz RF output
- 20 or 30dB Gain options
- Remote attenuation/slope control

#### AH10-RFSW AH1000 Forward RF Switch

#### **Features**

- A/B Style RF switch
- Hot swap plug-in module
- Bandwidth 5~1003 MHz
- RF level detection for auto matrix switching
- RF level monitoring for input and output
- Slope adjustment range from 0 to 4dB
- Remote monitoring and level setup

#### **Specifications**

 Bandwidth
 47 to 1218MHz

 Return Loss
 18dB

 Gain
 30/20dB ±0.6

 ATT/SLOPE Range
 0-9dB (0.5dB step)

Noise Figure 6.5@30dB Gain, 7.5@20dB Gain

CSO /CTB -78dBc/-84dBc (40dBmV o/p, 77NTSC+75QAM)

Power Consumption ≤16 W

**Dimensions (W x D x H)** 25x380x138 mm







More module types are available, such as Forward Receiver, 1550nm QAM transmitter, RF Switch, Fiber DCM etc.



# AT5100 1RU XMOD 1/2 Output 1550nm Transmitter

#### **Features**

- Video-Overlay for FTTx applications
- Adjustable SBS 13dBm to 18dBm
- Low noise, high performance
- Low dispersion distortion

- Long distance CATV transmission
- Dual hot-swappable PS
- Status morning and control
- SNMP management



#### **Specifications**

Bandwidth 5 to 1218MHz 16dB **Return Loss** Insertion loss <7dB 0-4dB **SLOPE Control Frequency Response** ±0.75dB **Switching Time** ≤15ms **Power Consumption** ≤2 W Dimensions (W x D x H) 25x380x138 mm

# AT5000 1RU EDFA High Performance Optical Amplifier

#### **Features**

- Video-Overlay for FTTx applications
- Up to 32 output ports
- Low noise, high performance
- Intuitive front panel LCD display
- Adjustable output
- Redundant power
- Universal management through craft interface and SNMP



#### **Specifications**

 Wavelength
 1540 to 1563nm

 Input power, dBm
 -10 to 10, 3dBm typical

 Maximum output power, dBm
 26dBm per port

 Output Power Stability, dB
 ±0.5

 Noise Figure, dB (PIN=0dBm)
 <5 (o/p<19dBm), <6 (o/p<23dBm), <7 (o/p<26dBm)</td>

 Power Supply
 90 to 265 VAC or 30 to 72 VDC

 Dimensions (W x D x H)
 483x368x44 mm, 19x14.5x1.75 inch

#### AT5000 1RU DMOD Forward 1550nm Transmitter

#### **Features**

- Video-Overlay for FTTx applications
- Cost Effective solution
- QAM DWDM overlay
- Analog and digital video

- Redundant power
- Intuitive Front Panel LCD Display
- Universal management through craft interface and SNMP



### Specifications

 Optical Wavelength
 1550±5nm

 RF bandwidth
 47 to 1218MHz

 Optical Output Power
 6, 9, 10dBm

CNR 51dB (60ch PAL, 10km fibre, 0dBm receive)

 CTB /CSO
 -63dBc/-57dBc

 RF Input Level
 15 to 25dBmV

**Dimensions (W x D x H)**483x254x44 mm, 19x10x1.75 inch



### AT5000 1RU 1310 nm Forward Transmitter

#### **Features**

- 1 GHz high performance DFB transmitter
- AGC/MGC
- Analog and Digital Video
- Single or dual RF inputs

- Redundant power
- Intuitive front panel LCD display
- Universal management through craft interface and SNMP



#### **Specifications**

 Optical Wavelength
 1310nm

 RF bandwidth
 47 to 1218MHz

 Optical Output Power
 2 to 15dBm

 CNR
 52dB

 CTB /CSO
 -70dBc/-63dBc

 RF Input Level
 15 to 25dBmV

**Dimensions (W x D x H)** 483x254x44 mm, 19x10x1.75 inch

### **AT5000 1RU Quad Return Receiver**

#### **Features**

- Four independent return receiver

  RFoG Option available

  Low noise, high performance

  Redundant power
- Bandwidth 5~200 MHz Universal management through craft interface and
- Intuitive front panel LCD display SN



#### **Specifications**

Wavelength 1200 to 1620nm

Optical Input Ports

Optical Input Level -18 to OdBm(STD), -27 to -13dBm (RFoG)

 RF Output Level
 30 to 60dBmV

 RF Return Loss
 ≥16dB

 RF Attenuation
 0 to 30dB

**Dimensions (W x D x H)**483x368x44 mm, 19x14.5x1.75 inch

### AT5000 1RU Optical A/B Switch

#### **Features**

- Laser/fiber protection
- Low insertion loss
- Switching speed <10ms</li>
- Manual/automatic mode

- Redundant power
- Intuitive front panel LCD display
- Universal management through craft interface and SNMP

www.ascentcomtec.com



#### **Specifications**

Optical Wavelength 1260-1360nm or 1510-1610nm

Optical Output Power -30 to -20dBm or -10 to +10dBm or +10 to +30dBm

 Total Optical Insertion Loss
 2.0dB

 Switch Time
 ≤10ms

 Optical Switch Loss
 ≤1.0dB

**Dimensions (W x D x H)** 483x254x44 mm, 19x10x1.75 inch

More module types are available, such as Forward Receiver, 1550nm QAM transmitter, RF Switch, Fiber DCM etc.

# **Optical Node Series**



#### AON2200 2 or 4-Port 2x2 Node Platform

#### **Features**

- 1.2 GHz Bandwidth
- 4 high outputs (50dBmV)
- Linear equalizer using JXP PAD for slope adjustment
- Suitable for MDU, SMB
- GaAs technology

- 5 module slots, 2 RX, 2 TX, 1 TXP
- Modular return transmitter (FPi or DFBi,
   CWDM, DWDM, optional burst mode)
- 15 Amp power passing
- LED status indicators
- HMS transponder

#### **Specifications (Forward and Return)**

Optical Wavelength (Forward Path)

RF bandwidth
Optical Input Power
RF Output Level

CNR

CSO/ CTB
Operating Temp
Dimensions (W x D x H)

Optical Wavelength (Return Path)

RF Bandwidth
Output Power

RF Input Level threshold RFoG Burst Mode RTX NPR 1200 to 1600nm

54/85 to 1003MHz

-8 to +2dBm

50dBmV @ 0dBm, 60 PAL, 3 % OMI

51dB (79ch NTSC, 20km fibre, -1dBm receive)

-60dBc/-65dBc -40 to 60 °C 297x220x156mm

1310, 1550, CWDM 5 to 42 MHz, 5 to 65 MHz 3dBm (RF input > threshold)

15 to 25 dBmV 20dBmV @ 30dB



#### **AON121X 1 or 2-Port Cabinet Node Platform**

#### **Features**

- 1.2 GHz bandwidth
- Deep fiber node with 1 or 2 high outputs
- Compact cabinet housing
- Suitable for MDU, SMB
- Built-in forward redundancy switch
- GaAs amplifier device
- SMT process production
- 1x108 dBμV or 2x104 dBμV
- Excellent AGC performance
- ONU module optional

#### **Specifications (Forward and Return)**

 Operating Wavelength
 1260 nm 1650 nm

 Pass Wavelength
 1540 nm to 1560 nm

 Reflect Wavelength
 <1540nm</td>

<1540nm >1560nm

Insertion Loss <0.7 dB

 Isolation Com-Pass
 >35 dB @1490, 1577 nm

 Isolation Ref-Pass
 >35 dB @1270, 1310 nm

 Return Loss
 >45 dB

 Responsivity
 >0.85 mA/mW

 Connector
 SC/APC

RF Bandwidth5 to 42 MHz, 5 to 65 MHzOutput Power3dBm (RF input > threshold)

**RF Input Level threshold** 15 to 25 dBmV





# **RF Amplifier Series**



# **ARF220 Series 2-port Trunk or Line Amplifier**

#### **Features**

- 1218 MHz RF Spectrum
- Suitable for deep fiber architecture
- 1 or 2 high outputs
- Compact housing

- Suitable for MDU application
- 2x108dBuV
- GaAs technology
- F-type, 5/8-inch UNEF, IEC Connector



#### **Specifications**

 RF Bandwidth
 54 to 1002 MHz

 RF Output Power
 108dBuV@1002MHz

98dBuV@54MHz

**RF Return Bandwidth** 5 to 42, 5 to 65MHz (Diplex Filter)

RF Gain Forward ≥33dB (1 and 2 ports)
RF Gain Return ≥23dB (1 and 2 ports)

Noise Figure 5dl

 CSO /CTB
 -67dBc/-75dBc

 Operating Temp, °C
 -40 to 65

 Dimensions (W x D x H)
 257x203x142mm

# **ARF120 Series 2 port Trunk or Line Amplifier**

#### **Features**

- 1218 MHz Bandwidth
- Cost effective
- 1 or 2 high outputs
- Compact housing

- Suitable for MDU application
- 1x112dBuV
- GaAs FET technology
- 10 Amp current passing
- Optional AGC

#### **Specifications**

**RF Bandwidth** 54 to 1002 MHz

RF Output Power Standard 109dBuV @ 862MHz; 99dBuV @ 87MHz

Max 112dBuV @ 862MHz

**RF Return Bandwidth** 5 to 42, 5 to 65MHz (Diplex Filter)

RF Gain Forward ≥36dB (1 and 2 ports)
RF Gain Return ≥20dB (1 and 2 ports)

Noise Figure 50

 CSO/CTB
 -65dBc/-70dBc

 Operating Temp, °C
 -40 to 65

 Dimensions (W x D x H)
 290x136x203mm



# **Ethernet over Cable (EoC) Series**



#### **AM200 EoC Indoor Master and Client CPE**

#### **Features**

- FTTB MDU application
- 7.5 to 65 MHz
- High quality CATV
- 350Mbps symmetrical
- EoC Master (Homeplug AV) with 100 clients
- IEEE 802.3, IEEE 802.3x, IEEE 802 3u Auto MDI
- VLAN, QoS, IGMP
- 1.25Gbps uplink
- 10/100Mbps LAN
- Support remote monitoring and SNMP

#### **Specifications (AM242 EoC Master)**

 Fast Ethernet Ports
 2x 10/100/1000Mbps Upstream

 CATV RF Output
 1 or 2 CATV Coaxial F Connector

 CATV RF Input
 1 or 2 CATV Coaxial F Connector

**EoC Specification** HomePlug AV

**Modulation** OFDM 1024/256/64/16/8-QAM, QPSK, BPSK

RF Bandwidth 7.5 to 65MHz
Typical EoC Link Range 1km
Receive sensitivity -65dBm
Output Power 15dBm

 Data Performance
 350Mbps

 MAC Speed
 350Mbps

 Physical Layer Speed
 500Mbps

 Protocol
 TDMA, CSMA/CA

 VLAN/QoS
 IEEE 802.1P, IEEE 802.1Q

 Encryption
 128-bit AES

General Specifications

 $\begin{array}{lll} \mbox{Operating Temp} & -25\ \mbox{to }60\ \mbox{°C} \\ \mbox{Storage Temp} & -40\ \mbox{to }70\ \mbox{°C} \end{array}$ 

**Power Supply** 12V, 100 to 240 VAC Adaptor

Operating relative humidity, 10 to 90 % Power Consumption 7 W

**Dimensions (W x D x H)** 162x 152 x 33 mm

#### Specifications (AC124 EoC Client/Slave)

 Fast Ethernet Ports
 4x 10/100Mbps LAN port

 CATV RF Output
 1 x CATV Coaxial F Connector

 CATV RF Input
 1 x CATV Coaxial F Connector

**EoC Specification** HomePlug AV

**Modulation** OFDM 1024/256/64/16/8-QAM, QPSK, BPSK

RF Bandwidth 7.5 to 65MHz
Typical EoC Link Range 1km
Receive sensitivity -65dBm
Output Power 15dBm
Data Performance

MAC Speed 350Mbps
Physical Layer Speed 500Mbps
Protocol TDMA, CSMA/CA
VLAN/QoS IEEE 802.1P, IEEE 802.1Q
Encryption 128-bit AES

**General Specifications** 

 Operating Temp
 -5 to 55 °C

 Storage Temp
 -40 to 70 °C

**Power Supply** 12V, 100 to 240 VAC Adaptor

Operating relative humidity, 10 to 90 % Power Consumption <7 W

**Dimensions (W x D x H)** 155x 108 x 27 mm





# **Optical and RF Passives**



### **Optical Passives for HFC, FTTx & RFoG Solutions**

#### **Features**

Channels

- Full line of optical passives and accessories
- WDM/CWDM/DWDM
- Optical splitters
- ITU G.694 standard compliant
- Excellent wavelength stability
- Cost effective solution
- High port isolation
- Low insertion loss
- Flexibility for customization



#### **Optical Splitter Specifications**

 Optical wavelength
 1260 nm to 1350 & 1460 to 1620 nm

 Configuration
 1x2, 1x3, 1x4, 1x8, 1x16, 1x24, 1x32

Channel pass band ≥ 14 nm

Insertion Loss 1 ch to 4 ch Various (Ref Passive Datasheet)

Insertion Loss 1x8 Coupler10.5dBInsertion Loss 1x12 Coupler12.5dBInsertion Loss 1x24 Coupler17dBInsertion Loss 1x32 Coupler18dB

Uniformity (dB)  $\leq 1.2 (1x4); \leq 1.8 (1x8); \leq 2.0 (1x12); \leq 3.0 (1x32)$ 

**Directivity**  $\geq 50 \text{ dB}$ 

**Polarization Dependent Loss**  $\leq 0.2 (1x4); \leq 0.3 (1x8); \leq 0.3 (1x12); \leq 0.5 (1x32)$ 

**Return loss** ≥ 50 dB

Connectors SC/APC, SC/PC, LC/APC, LC/PC
Fiber Types 900um, 2mm, or 3mm

Operating Temp, °C-40 to 85Storage Temp, °C-40 to 85Operating relative humidity, %5 to 95

Dimensions (W x D x H)Various by modelWeight, kgVarious by modelShip weightVarious by model

#### Optical WDM, CWDM, DWDM, OADM Specifications

**Optical wavelength** 1260 nm to 1360 & 1480 to 1611 nm (CWDM)

1520 to 1580nm (DWDM)

Channel spacing 20 nm (CWDM)

100 or 200 GHz (DWDM)

2, 4, 6, 8, 10, 12

**Channel pass band** CW±7.5nm, DWDM ITU ±0.25nm

Pass band flatness < +0.5 dBInsertion Loss 2 ch 1.2 dB Max Insertion Loss 4 ch 1.7 dB Max **Insertion Loss 8 ch** 2.5 dB Max Adjacent channel isolation ≥ 30 dB ≥ 40 dB Non-adjacent channel isolation Directivity ≥ 45 dB **Return loss** ≥ 45 dB Operating Temp, °C -40 to 85 Storage Temp, °C -40 to 85 Operating relative humidity, % 5 to 95

Dimensions (W x D x H)Various by modelWeight, kgVarious by modelShip weightVarious by model



# **Optical and RF Passives**



### **Optical Splice Enclosure & Distribution Frame**

#### **Features**

- High strength, low weight, non-metallic shell
- Aerial, underground or direct burial application
- Holds up to 144 splices
- Cable entry/exit ports
- RoHS compliant

- Standard 19" cabinet design frame
- Fiber management with easy installation
- Reliable restricting and positioning
- Patent design for fiber protection
- 12 core fiber distribution

#### **Optical Splice Enclosure Specifications**

Sealing structure Heat-shrinkable Sealing Maximum Splices Capacity 24 to 144

 Core Capacity per Tray
 24

 Cable Ports
 9

 Cable Diameter (max)
 Φ38mm

 Dimensions (DxH)
 φ470×210mm

Model Number AOP-HSE-9-xx (xx: splices)

Operating Temp, °C-40 to 85Storage Temp, °C-40 to 85Operating relative humidity, %5 to 95



#### **Optical Distribution Frame Specifications**

Material 1.5mm thick cold-rolled sheet, 1 to 4RU

Insertion Loss ≤0.5dB

Optical Connector AS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPC

**Return Loss** PC≥40dB, UPC≥50dB, APC≥60dB

Model Number AOP-ODF-DXX-YY (XX:36, 48, 72, 96 Fiber, YY: Optical Connector)

Operating Temp, °C -40 to 85
Storage Temp, °C -40 to 85
Operating relative humidity, % 5 to 95
Insertion Loss ≤0.5dB



# RF Line Passives, Taps, Splitters and Filters

#### **Features**

- Two-way passives
- RF pass band of 5 MHz to 1 GHz
- Corrosion-resistant
- Die-cast aluminum housing
- Stand, pole, or pedestal mounting
- Variety of installation configurations
- Accept up to 1-inch diameter coaxial cable
- Easy troubleshooting
- Simple field replacement
- AC power-passing capability

#### **Specifications**

 RF Frequency
 5 to 1002MHz

 Tap Loss
 ±1.2 dB

 Insertion Loss
 Various by models

 Impedance
 75Ω

 Return Loss
 Various by models

 Return Isolation
 Various by models

 Connectors
 Metric or Imperial Type

Current Passing ≥14A
Operating Temp -40 to 85 °C

Dimensions (W x D x H) Various, check with ACT Sales Professionals



# **Optical and RF Passives**



# Plug-in Optical ATT, Patch Cords, Pigtails and Adaptors

#### **Features**

#### **Optical Attenuator Specifications**

 Operating wavelength
 1310nm ±40nm & 1550nm ±40nm

 Attenuation Level
 XX: 01, 02, 03...30dB in 1 dB step

Attenuation Accuracy ±10 %

 Optical Connector
 AS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPC

 Model Number
 AOP-ATT-XX-YY (XX: Attenuation; YY: Optical Connector)

#### **Optical Patch Cord Specifications**

**Fiber Type** 3mm Single Mode

**Fiber Length** 02: 2m, 05: 5m, 10: 10m, 30: 30m

Insertion Loss ≤0.5dB

**Optical Connector** AS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPC

Model Number AOP-PCD-XX-YY-ZZ (XX, YY: Optical Connector, ZZ: Fiber Length)

#### **Optical Pigtail Specifications**

Fiber Type 3mm Single Mode, Connectorized on one end and bare on other

**Fiber Length** 02: 2m, 05: 5m, 10: 10m, 30: 30m

Insertion Loss ≤0.25dB

Optical ConnectorAS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPCModel NumberAOP-PGT-XX-ZZ (XX: Optical Connector, ZZ: Fiber Length)

#### **Optical Adaptor Specifications**

Optical Connector AS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPC

**Insertion Loss** Various by connector types

Optical ConnectorAS: SC/APC; US: SC/UPC; AF: FC/APC or UF: FC/UPCModel NumberAOP-ADP-XX-YY (XX, YY: Optical Connector)

#### **General Specifications**

Operating Temp, °C-40 to 85Storage Temp, °C-40 to 85Operating relative humidity, %5 to 95

Weight, kg Various by model types









# IPTV, OTT & Set Top Box



### **AQ1000 Universal Edge QAM Modulator**

#### **Features**

- 1 GHz bandwidth
- High density 1RU platform
- IPTV, VOD, DOCSIS 3.0, SDV
- 48 or 96QAM channels
- 8x1000Base-T uplink
- MPEG-2/MPEG-4/H.264 /HDTV/SDTV
- Support both SD and HD channels
- ITU-T J.83 Annex A/B
- **Optional DVB-CA and Scrambling**
- Internal Web server
- **SNMP** management



#### **Specifications (Forward and Return)**

**Standard Format** ITU-T J.83AnnexA(DVB)/Annex B(ATSC) 64QAM/128QAM/256QAM **QAM Signal Constellation** 

**Frequency Range** 50-1000MHz

MER  $MER \ge 40dB(pre-EQ)$ ,  $MER \ge 45dB (post-EQ)$ 

SNR≥58dB **SNR** 1ch 120dBmV; 2ch 117dBmV; **Output Level** 

3ch 115dBmV; 4ch 113dBmV; **Physical Input Ports** 4xSFP+4xRJ45 **Protocol** IP, UDP, IGMP supported

Redundancy

Optical 850, 1310, 15xxnm, Electrical 1000Base-T Supported SFP

**Optical Return Loss** Support for power SFP:1000Base-T

**Operating Temp** 0 to 40 °C **Storage Temp** -40 to 70 °C Dimensions (W x D x H) 483x522x43mm



#### **Features**

- IP/Android-based OTT STB
- H.264 SD Decoding
- IPTV enhanced video
- Multicast, VOD, SDV and Internet access
- Flexible audio and video outputs
- Maximum bandwidth efficiency
- Integration to IPTV system
- Remote management
- **Plug and Play**
- Easy installation and setup

#### **Specifications**

**Streaming Protocol** 

**Video Decoding Standards** H.264/AVC, MPEG2 (optional)

Video Form PAL / NTSC

MPEG (Layer1, 2), MP3, AAC /Dolby (optional) **Audio Decoding Standards** Standards

IEEE 802.1, 802.3, IP Protocol: IPv4

**Network Protocol** TCP/IP, HTTP, POP3, DHCP, DNS, FTP, NTP, SSL,

PPPoE, SNMP, SMTP Multicast IPTV (IGMP)

Video On Demand (RTSP/RSVP control)

VOD: FCC multicast and ARQ VOD: Support listing QoS (optional)

TS over UDP, TS over RTP

**Transport Protocol** -40 to 60 °C **Operating Temp** Dimensions (W x D x H) 260x220x120mm











#### **Ascent Communication Technology Ltd**

#### **AUSTRALIA**

140 William Street, Melbourne Victoria 3000, AUSTRALIA Phone: +61-3-8691 2902

#### **CHINA**

Unit 1933, 600 Luban Road 200023, Shanghai CHINA Phone: +86-21-60232616

#### **EUROPE**

55129 Mainz, GERMANY Phone: +49 (0) 6136 926 3246

Pfarrer-Bensheimer-Strasse 7a

WEB: www.ascentcomtec.com

#### **Hong Kong SAR**

Unit 9, 12th Floor, Wing Tuck Commercial Centre 177 Wing Lok Street, Sheung Wan, Hong Kong SAR Phone: +852-2851 4722

#### **USA**

2710 Thomes Ave Cheyenne, WY 82001, USA Phone: +1-203 816 5188

#### **VIETNAM**

11th Floor, Hoa Binh Office Tower 106 Hoang Quoc Viet Street, Nghia Do Ward Cau Giay District, Hanoi 10649, VIETNAM Phone: +84-24-37955917

**EMAIL**: sales@ascentcomtec.com

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