

Request for Quotations

SLOT 2

TENDER OPENING CLOSING ON 06 DECEMBER 2023 Wednesday, December 6 · 11:00am – 12:00pm Time zone: UTC Google Meet joining info Video call link:
<https://meet.google.com/joh-yimb-ine>

	Tender	Description	Qty	Specs
1	1518-23	Supply and delivery of laptops: Core i5 laptops Mini laptops	5 2	Specification attached
3	RFQ 1520-23	Supply and delivery of Dead End set Bidders to provide data sheets from the manufacturer with the quotation, failure which bid will be rejected	10,000	Specs attached below the table
4	RFQ 1521-23	For supply and delivery of Huawei GPON 2 Port terminal SC/APC with Ethernet cable yellow point. Bidders to provide data sheets from the manufacturer with the quotation, failure which bid will be rejected	5000	Specs attached below the table
5	RFQ 1522-23	For supply and delivery of MicroDuct Fiber 96 Core Bidders to provide data sheets from the manufacturer with the quotation, failure which bid will be rejected	100,000M trs	Specs attached below the table
6	RFQ 1523-23	For supply and delivery of Drop Wire Clamps Bidders to provide data sheets from the manufacturer with the quotation, failure which bid will be rejected	30000	SPECS ATTACHED BELOW THE TABLE
7	RFQ 1524-23	For supply and delivery of Voice Channel Multiplexers 1. 8 Port channel voice multiplexer Baudcom Fibre BFXD/FXST4ERTH 2. 16 Port Voice baudcom fibre 16 FX0/FXST4ETH A0200+DC48(SETS) 3. 30 Port Channel voice maxiplexers 30 FX0/FX5 +4ETH ACOZZO +DC 480 Bidders to provide data sheets from the manufacturer with the quotation, failure which bid will be rejected.	50 50 60	SPECS ATTACHED BELOW THE TABLE

Bidders with outstanding orders for any of the above items will not be considered for supply

TELONE RESERVES THE RIGHT TO INCREASE AND DECREASE QUANTITY

Please note that only bidders registered with **Procurement Regulatory Authority of Zimbabwe (PRAZ)** shall be considered.

(Please attach Proof of PRAZ registration in the specified category)

Closing date for ALL Tenders: On or before 1100hrs; Wednesday 06 December 2023

(Pricing MUST be strictly in ZWL unless requested otherwise or risk being automatically disqualified)

Your Tender should state the price (Please state your **VAT** status), a firm delivery date Emailed to procurement@telone.co.zw

- Bidders should also be compliant with the new regulations for FISCAL TAX INVOICE where necessary.
- Each tender should be in its own envelop, tenders should not be mixed on one quotation.

RFQ 1518-23

Core i5 11th Gen General Laptop specifications

Item	Technical Requirements/Specifications	Compliance
1	Channel of Distribution: To meet local vendor Warranty centre requirements	
2	Warranty Centre Laptop MUST have local (Zimbabwean warranty centre)	
3	Processor: Intel® Core™ i5-1135G7 (up to 4.2 GHz, 8 MB L3 cache, 4 cores) + Intel® Iris® Xe Graphics or better	
4	RAM: 16 GB DDR4 SDRAM memory	
5	Hard Drive Size: 512 SSD Minimum	
6	Display: 13 to 15 Inch diagonal High-Definition Display (1366 x 768), Intel HD Graphics with up to 1696MB total graphics memory ((Non Touch)	
7	External Ports: 2 USB 2.0 1 HDMI; 1 VGA (15-pin); 1 RJ -45 (LAN); 1 Headphone-out; 1 Microphone-in, Integrated 10/100/1000 Gigabit Ethernet LAN; Wireless LAN 802.11b/g/n WLAN (<i>where no USB, HDMI, VGA, RJ -45 (LAN) ports please provide adapters</i>)	
8	Audio: Advanced Audio with internal speakers;	
9	Outlook: Brushed metal finish; Webcam with integrated digital microphone;	
10	Operating System: Windows 10 Professional 64-bit	
11	Carry case: Backpack laptop bag (see specs below)	
12	Battery Life 6hrs productive usage	
13	Battery Type Lithium Ion-cell	
14	Laptop Level No entry level like HP 15, HP 250)	
15	Warranty: 1-year warranty	

Mini laptop specs

Processor: Intel Atom (TM) x5-Z8300 cpu @ 1.44GHz 1.44GHz
Memory: 4gig ram

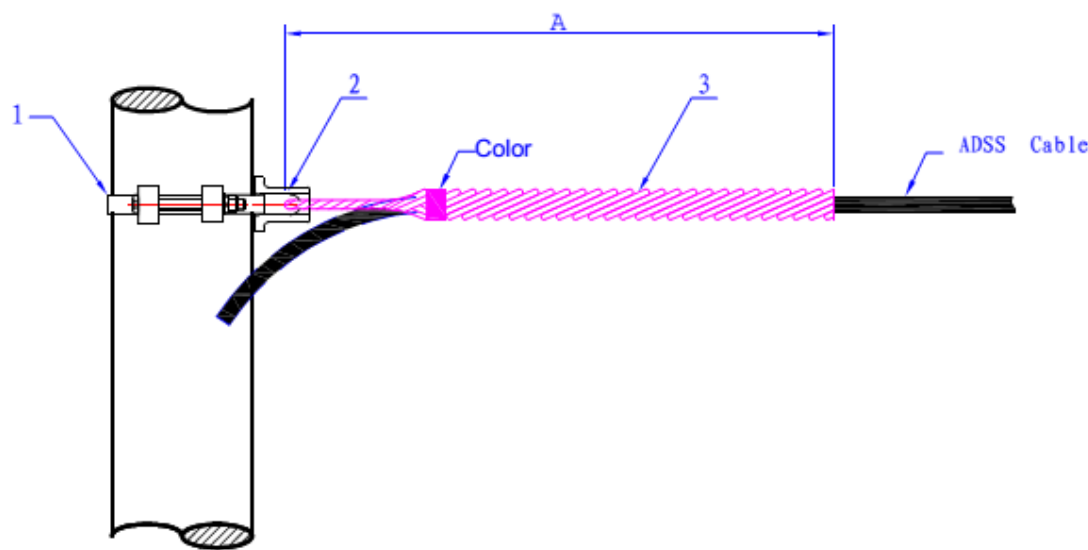
Storage: 128gig solid state drive
Webcam: Yes

Connections:wireless, Mini HDMI port, USB 3.0 ports, Bluetooth
Battery Life: 8 hours+
OS: Windows 10 pro
Outlook: anti scratching and shock proof rubber casing

Case: Padded casing

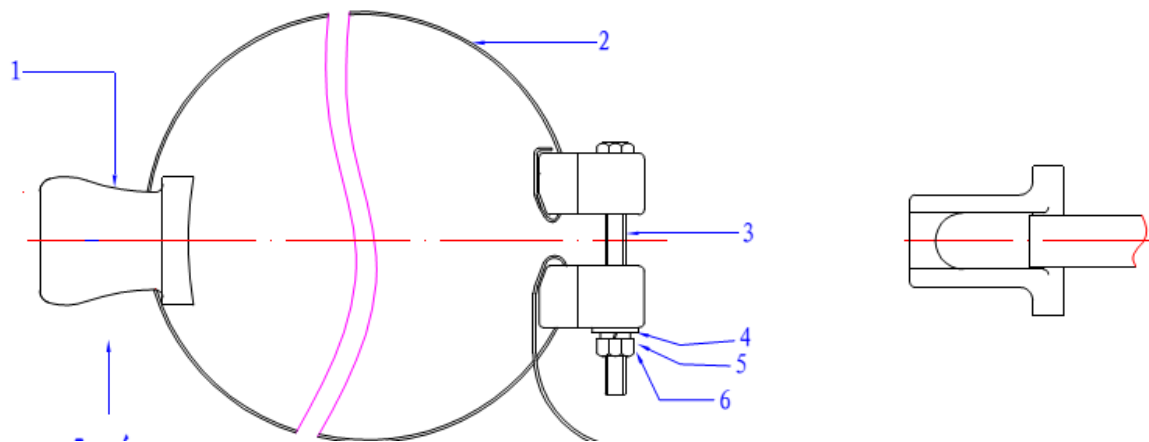
RFQ 1520-23

Dead end Set



Suitable for: ADSS Cable
Rated tensile strength: 10KN
Suitable span:0-100m

- 1. Stainless steel fasten clamp for pole
- 2. Thimble
- 3. Tension wire



- 1. Clevis thimble
- 2. Stainless steel band
- 3. Bolt
- 4. Washer
- 5. Spring washer
- 6. Nut

NB: Supports Cable diameter 11.5 to 13.2mm

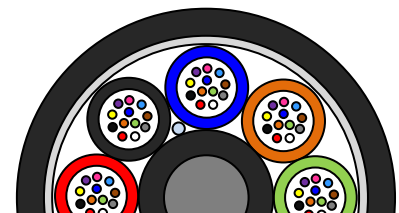
RFQ 1522-23

Micro Cable Specification

CableDesign

Loose Tube Optical Fiber Cable-Non Armored-Dielectric-Dry Core-G.652D Fiber

- Central Strength Member (CSM):glass fiber reinforced plastic rod (FRP), withPE sheath covering when needed.



- **Buffer Tube:** PBT plastic material, containing12 fibers and filled with a suitable water tightness compound.
- **Filler Elements:** nature PP plastic rods, when needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Ripcord(s):** Iaramid ripcordunder sheath.
- **Outer Sheath:** BlackHDPE.

CableSpecification

Cable Cores		96
No. of Tubes		8
No. of Fillers		0
Fiber Counts in Tube		12
Tube/Filler- Φ	mm	1.55
CSM- Φ	mm	2.1
CSM with PE- Φ	mm	2.6
Thickness of Outer PE Sheath	mm	0.5
Nominal Cable Diameter	mm	6.8
Nominal Cable Weight	Kg/km	40

CableApplication

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-40~+70℃	Load	20×D
Operation	-40~+70℃	Unload	10×D

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	700N, 10min	Attenuation change<0.05dB/km, no damage
Crush	IEC 60794-1-2-E3	1000N/10cm, 10min, 3times	
Impact	IEC 60794-1-2-E4	5J, R=300mm, 3impacts	
Repeated Bending	IEC 60794-1-2-E6	R=15D, 20N, 20cycles	
Bend	IEC 60794-1-2-E11	R=15D, 4turns, 10cycles	
Torsion	IEC 60794-1-2-E7	20N, 10cycles, +/-180 ⁰	
Temperature Cycling	IEC 60794-1-2-F1	-40~+70℃, 2cycles, 4h	
Water Penetration	IEC 60794-1-2-F5	3m sample, 1m height, 24h	
			No water leakage

Fiber & Tube Color

Color Identification of Fiber

Number	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Color Identification of Tube

Number	1	2	3	4	5	6	7	8
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black

Cabled Fiber Performance (G.652D)

Characteristics		Acceptance Value
Attenuation	@ 1310nm	≤0.35dB/km
	@ 1383nm	≤0.34dB/km
	@ 1550nm	≤0.21dB/km
	@ 1625nm	≤0.23dB/km
Mode Field Diameter	@ 1310nm	9.1±0.4μm
	@ 1550nm	10.3±0.5μm
Dispersion	@ 1300 +30/-15nm	≤3.5ps/(nm·km)
	@ 1550nm	≤17.5ps/(nm·km)
	@ 1625nm	≤22ps/(nm·km)
Zero-Dispersion wavelength		1300nm～1324nm
Zero-Dispersion slope		≤0.090ps/(nm ² ·km)
Cable cutoff wavelengthλ _{cc} (nm)		≤1260nm
Polarization Mode Dispersion (PMD)	Max. individual	≤0.20ps/km ^{1/2}
Cladding diameter		125±0.7μm
Cladding non-circularity		≤0.7%
Core/cladding concentricity error		≤0.5μm
Fiber diameter with coating (uncolored)		242±5μm
Cladding/coating concentricity error		≤12.0μm
Proof stress		≥0.69GPa(100kpsi)
Dynamic stress corrosion susceptibility parameter (typical value)		≥20

Sheath Marking

The outer sheath is marked in 1 meter intervals as follows:

Delivery Lengths

Standard delivery lengthwill be 4km or 6km.

SPECIFICATIONS FOR HUAWEI GPON

HUAWEI GPON Specification	
Dimensions (L x W x H)	176 mm x 138.5 mm x 28 mm (without an external antenna)
Operating temperature	0°C to +40°C
Operating humidity	5% RH to 95% RH (non-condensing)
Power adapter input	100–240 V AC, 50/60 Hz
System power supply	11–14 V DC, 1.5 A
Static power consumption	5.5 W
Maximum power consumption	16.5 W
Ports	2POTS + 4GE +2.4G Wi-Fi + 1USB
Indicators	POWER/PON/LOS/LAN/TEL/USB/WLAN/WPS

GPON Port

- Class B+
- Receiver sensitivity: -27dBm
- Wavelengths: US 1310 nm, DS 1490 nm
- Wavelength blocking filter (WBF)
- Flexible mapping between GEM Port and TCONT
- GPON: consistent with the SN or password authentication defined in G.984.3
- Bi-directional FEC
- SR-DBA and NSR-DBA

Ethernet Port

- Ethernet port-based VLAN tags and tag removal
- 1:1 VLAN, N:1 VLAN, or VLAN transparent transmission
- QinQ VLAN
- Limit on the number of learned MAC addresses
- MAC address learning

POTS Port

- Maximum REN: 4
- G.711A/μ, G.729a/b, and G.722 encoding/decoding
- T.30/T.38/G.711 fax mode
- DTMF
- Emergency calls (with the SIP protocol)

USB Port

- USB2.0
- FTP-based network storage

WLAN

- IEEE 802.11 b/g/n
- 2 x 2 MIMO
- Antenna gain: 2 dBi
- WMM
- Multiple SSIDs
- WPS
- Air interface rate: 300 Mbps

Smart interconnection

- Smart Wi-Fi coverage (V300R015C10)
- SIP/H.248 auto-negotiation
- Any port any service
- Parental control (V300R015C00)
- L2/L3 forwarding: 1G uplink, 2G downlink

Smart service

- Smart Wi-Fi sharing:
Portal/802.1x authentication (V300R015C10)
SoftGRE-based sharing (V300R015C10)
- Association of one account with two POTS ports

Smart O&M

- IPTV video quality diagnosis (V300R015C10)
- Variable-length OMCI messages
- Active/Passive rogue ONT detection and isolation
- Call emulation, and circuit test and loop-line test
- PPPoE/DHCP simulation testing
- WLAN emulation

Layer 3 Features

- PPPoE/DHCP simulation testing
- WLAN emulation
- PPPoE/Static IP/DHCP
- NAT/NAPT
- Port forwarding
- ALG, UPnP
- DDNS/DNS server/DNS client
- IPv6/IPv4 dual stack, and DS-Lite
- Static/Default routes
- Multiple services on one WAN port

Multicast

- IGMP v2/v3 proxy(V300R015C00)/snooping
- MLD v1/v2 snooping
- Multicast services through Wi-Fi

QoS

- Ethernet port rate limitation
- 802.1p priority
- SP/WRR/SP+WRR
- Broadcast packet rate limitation

Security

- SPI firewall
- Filtering based on MAC/IP/URL addresses

Common O&M

- OMCI/Web UI/TR069
- Dual-system software backup and rollback

Power Saving

- Indicator power saving
- Scheduled Wi-Fi shutdown (V300R015C00)

RFQ 1523-23

[Malico Drop clamps](#)

DETAILED SPECIFICATION



Utilisation

- 1 pair of copper cable drop wire of 40 m per span
- Plastic and metal S Hook To be provided with a serrated shim to increase hold on drop wire
- Plastic part made of Nylon 6.
- Metal hook made of hot dip galvanized iron or aluminum.
- To be able sustain a direct load of at least 60 kg.
- To accommodate a Nominal Major diameter of 7.4mm, bias ±0.4mm drop wire cable
- Resistance to Heat Exposure (Aging): No cracks visible after aging for 168 hours at 121-+2 degrees

Application

- For flat aerial cables
- One copper cable pair

items	Specifications
Capacity	1 pair cable
Hook	5mm
Resistance Mini Failing Load	140 n
Weight	0.040-0.060 kg

DETAILED SPECIFICATION FOUR CHANNEL BAUDCOM MUXES

1. 4FXS/FXO+4Eth Optical Multiplexer with Enhanced lighting protection circuit

Bidders are required to provide detailed technical brochure and lighting circuit design diagram showing the enhanced protection unit part.

The series equipment is the company developed the PCM optical fiber transmission for the large scale integrated circuit on base of the developed of optical fiber transmission Provide 1~30 lines telephones, 4 *10/100M fast Ethernet (line 100M. Ethernet interface can exchange for each other, and VLAN division The working is reliable, stable, and low power consumption, high integration, small size, easy of installation and maintenance.

Features:

- Based on self -copyright IC
- The equipment for 1U 19 inch type
- 4 Channel voice access, supports caller ID feature and reverse polarity billing functions
- Support various sites mutual number allocation function
- Voice port supports FXO and FXS port,, FXO port docking with program-controlled
- switchboard, FXS port connected to the user's telephone
- 4Channel Ethernet interface is switch interface, support VLAN
- Ethernet interface rate is 10/100M,duplex/half duplex adaptive
- Can command the remote interface loop back to maintain the circuit
- The transmission distance is up to 2-50Km without interruption
- AC 220V, DC-48V, DC24V can be optional
- DC-48V/DC24V power has polarity automatic detection function, you can install the device without
- differentiation between positive and negative polarity.
- Enhanced lighting protection features.

Technical Specification

- Single Core Fiber
- Single-mode Fiber
- 50/85um
- Maximum transmission distance: 50Km 50/85um single mode fiber, attenuation (0.3/km)
- Wave Length: 1550nm/1490nm
- 1~30FXS/FXO+4Eth optical multiplexer
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 16dBm
- Single-mode Fiber/ single core fiber
- 8/85um, 8/85um
- Maximum transmission distance: 50Km
- Transmission distance: 50KM@9/85um single mode fiber, attenuation (0.35dbm/km) Wave
- Length: 1500nm/1490n
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 18dBm

Ethernet interface (10/100M)

- Interface rate: 10/100Mbps, half/full duplex auto-negotiation
- Interface Standard: Compatible with IEEE 802.3, IEEE 802.1Q (VLAN) MAC

- Address Capability: 4096
- Connector: RJ45, support Auto-MDIX

FXS Phone Interface Ring

- voltage: 75V Ring
- frequency: 25HZ
- Two-line Impedance: 600 Ohm (pick up)
- Return loss: 40 dB

FXO Switch Interface

- Ring detect voltage: 35V
- Ring detection frequency: 17HZ-60HZ Two line Impedance: 600 Ohm (pick up) Return
- loss: 40 dB

Line lighting Protection

- **Detailed lighting circuit design showing enhanced over-voltage from the line.**
- **Circuit design showing enhanced lighting protection**
- **All line ports to have lighting protection voice ports**
- **Enhanced lighting protection on the power side.**

Power

- Power supply: AC180V ~ 260V ; DC -48V ; DC +24V
- Power consumption: ≤7W

Working Environment

- Working temperature: -10°C ~ 50°C
- Working Humidity: 5%~95 % (no condensation)
- Storage temperature: -40°C ~ 80°C
- Storage Humidity: 5%~95 % (no condensation)

DETAILED SPECIFICATION

2. 16FXS/FXO+4Eth Optical Multiplexer with Enhanced lighting protection circuit

Bidders are required to provide detailed technical brochure and lighting circuit design diagram showing the enhanced protection unit part.

The series equipment is the company developed the PCM optical fiber transmission for the large scale integrated circuit on base of the developed of optical fiber transmission Provide 1~16 lines telephones, 4 *10/100M fast Ethernet (line 100M. Ethernet interface can exchange for each other, and VLAN division The working is reliable, stable, and low power consumption, high integration, small size, easy of installation and maintenance.

Features:

- Based on self -copyright IC
- The equipment for 1U 19 inch type
- 16 Channel voice access, supports caller ID feature and reverse polarity billing functions
- Support various sites mutual number allocation function
- Voice port supports FXO and FXS port,, FXO port docking with program-controlled
- switchboard, FXS port connected to the user's telephone
- 4Channel Ethernet interface is switch interface, support VLAN
- Ethernet interface rate is 10/100M,duplex/half duplex adaptive
- Can command the remote interface loop back to maintain the circuit
- The transmission distance is up to 2-50Km without interruption
- AC 220V, DC-48V, DC24V can be optional
- DC-48V/DC24V power has polarity automatic detection function, you can install the device without
- differentiation between positive and negative polarity.
- Enhanced lighting protection features.

Technical Specification

- Single Core Fiber
- Single-mode Fiber
- 50/85um

- Maximum transmission distance: 50Km 50/85um single mode fiber, attenuation (0.3/km)
- Wave Length: 1550nm/1490nm
- 1~16 FXS/FXO+4Eth optical multiplexer
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 16dBm
- Single-mode Fiber/ single core fiber
- 8/85um, 8/85um
- Maximum transmission distance: 50Km
- Transmission distance: 50KM@9/85um single mode fiber, attenuation (0.35dbm/km) Wave
- Length: 1500nm/1490n
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 18dBm

Ethernet interface (10/100M)

- Interface rate: 10/100Mbps, half/full duplex auto-negotiation
- Interface Standard: Compatible with IEEE 802.3, IEEE 802.1Q (VLAN) MAC
- Address Capability: 4096
- Connector: RJ45, support Auto-MDIX

FXS Phone Interface Ring

- voltage: 75V Ring
- frequency: 25HZ
- Two-line Impedance: 600 Ohm (pick up)
- Return loss: 40 dB

FXO Switch Interface

- Ring detect voltage: 35V
- Ring detection frequency: 17HZ-60HZ Twoline Impedance: 600 Ohm (pick up) Return
- loss: 40 dB

Line lighting Protection

- **Detailed lighting circuit design showing enhanced over-voltage from the line.**
- **Circuit design showing enhanced lighting protection**
- **All line ports to have lighting protection voice ports**
- **Enhanced lighting protection on the power side.**

Power

- Power supply: AC180V ~ 260V ; DC -48V ; DC +24V
- Power consumption: ≤7W

Working Environment

- Working temperature: -10°C ~ 50°C
- Working Humidity: 5%~95 % (no condensation)
- Storage temperature: -40°C ~ 80°C
- Storage Humidity: 5%~95 % (no condensation)

DETAILED SPECIFICATION

3. 4FXS/FXO+4Eth Optical Multiplexer with Enhanced lighting protection circuit

Bidders are required to provide detailed technical brochure and lighting circuit design diagram showing the enhanced protection unit part.

The series equipment is the company developed the PCM optical fiber transmission for the large scale integrated circuit on base of the developed of optical fiber transmission Provide 1~30 lines telephones, 4 *10/100M fast Ethernet (line 100M. Ethernet interface can exchange for each other, and VLAN division The working is reliable, stable, and low power consumption, high integration, small size, easy of installation and maintenance.

Features:

- Based on self -copyright IC
- The equipment for 1U 19 inch type
- 30 Channel voice access, supports caller ID feature and reverse polarity billing functions
- Support various sites mutual number allocation function
- Voice port supports FXO and FXS port,, FXO port docking with program-controlled switchboard, FXS port connected to the user's telephone
- 4Channel Ethernet interface is switch interface, support VLAN
- Ethernet interface rate is 10/100M,duplex/half duplex adaptive
- Can command the remote interface loop back to maintain the circuit
- The transmission distance is up to 2-50Km without interruption
- AC 220V, DC-48V, DC24V can be optional
- DC-48V/DC24V power has polarity automatic detection function, you can install the device without differentiation between positive and negative polarity.
- Enhanced lighting protection features.

Technical Specification

- Single Core Fiber
- Single-mode Fiber
- 50/85um
- Maximum transmission distance: 50Km 50/85um single mode fiber, attenuation (0.3/km)
- Wave Length: 1550nm/1490nm
- 1~30FXS/FXO+4Eth optical multiplexer
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 16dBm
- Single-mode Fiber/ single core fiber
- 8/85um, 8/85um
- Maximum transmission distance: 50Km
- Transmission distance: 50KM@9/85um single mode fiber, attenuation (0.35dbm/km) Wave
- Length: 1500nm/1490n
- Transmitting power: -2dBm (Min) ~+2dBm (Max)
- Receiver sensitivity: -28dBm (Min)
- Link budget: 18dBm

Ethernet interface (10/100M)

- Interface rate: 10/100Mbps, half/full duplex auto-negotiation
- Interface Standard: Compatible with IEEE 802.3, IEEE 802.1Q (VLAN) MAC
- Address Capability: 4096
- Connector: RJ45, support Auto-MDIX

FXS Phone Interface Ring

- voltage: 75V Ring
- frequency: 25HZ
- Two-line Impedance: 600 Ohm (pick up)
- Return loss: 40 dB

FXO Switch Interface

- Ring detect voltage: 35V
- Ring detection frequency: 17HZ-60HZ Twoline Impedance: 600 Ohm (pick up) Return
- loss: 40 dB

Line lighting Protection

- Detailed lighting circuit design showing enhanced over-voltage from the line.
- Circuit design showing enhanced lighting protection
- All line ports to have lighting protection voice ports
- Enhanced lighting protection on the power side.

Power

- Power supply: AC180V ~ 260V ; DC -48V ; DC +24V
- Power consumption: ≤7W

Working Environment

- Working temperature: -10°C ~ 50°C
- Working Humidity: 5%~95 % (no condensation)
- Storage temperature: -40°C ~ 80°C
- Storage Humidity: 5%~95 % (no condensation)

4. 8FXS/FXO+4Eth Optical Multiplexer with Enhanced lighting protection Circuit