Datasheet

ISCOM5504 GEPON Optical Line Terminal

ISCOM5504 is Optical Line Terminal of Raisecom GEPON system that aggregates Ethernet traffic from remote ONU devices through passive optical splitters. It provides 4 single-strand PON interfaces for communicating with downlink ONU devices and 4 gigabit combo interfaces for connecting with uplink switches, enabling a high-speed and cost-efficient FTTH solution in last mile. Raisecom GEPON complies with IEEE802.3ah standard and enhances the transfer rates of high-speed Internet connection services by fiber optics while reducing the cost by sharing multiple lines. It can greatly reduce the networking CAPEX and OPEX for its reducing failure points and simplifying network architecture, presenting carriers an ideal solution for deploying packet switching network with limited fiber resources.

ISCOM5504 GEPON Optical Line Terminal

Feature

Forwarding mode	Store-and-forward
Max frame size	1596 Bytes Support Jumbo frame
Port rate limiting	Based on ingress and egress of each port, 64K increment
Storm control	Support storm control of broadcast, multicast and DLF according to PPS
Multicast	IGMP Snooping V1/V2/V3 Multicast VLAN Registration (MVR)
Spanning tree	STP and RSTP
Link aggregation	Up to 4 trunk groups, 4 1000M ports in each trunk 6 types of load-sharing based on MAC and IP address
Mirror	Port-to-Multiport morroring, separate mirroring of ingress and egress traffic
MAC address table	IEEE802.1D standard address learning MAC address learning function can be enabled/disable on each port 16K MAC address, 100 static MAC address Support MAC address clear/search function Show MAC address and MAC address stats function The number of dynamic learned MAC address can be limited on per port
Flow control	IEEE802.3x in full duplex, back pressure in half duplex
VLAN	IEEE802.1Q, double tagging (Q-in-Q), 4K active VLAN
Tranparent transmission	Support BPDU, Dot1x, LACP, GMRP, GVRP, and GARP on per port
SLA	Support upstream Service Level Agreement, increasement 64kbps
Link diagnostic	Link diagnostic on PON network
OAM	Support IEEE802.3ah standard OAM and Raisecom OAM
Encryption and security	Prevent illegal ONU from accessing the PON network through ONU register control; illegal ONU cannot register to OLT
Remote management	ONU devices can be remotely managed
Management	SNMP/Telnet/Console
Supervisory	Support monitoring of GEPON related statistics information; configuring monitor variable; alarm management
Advanced feature	
QoS	Support CAR (Committed Access Rate) function at 1M increment Up to 4 output queues Support 1K data flow queues at maximum VLAN ID replacement based on data flow Support IEEE802.1p and DSCP PRI remark Support QoS Profile management, customized QoS proposal Support re-mark function based on port ID, MAC address, VLAN, IEEE802.1p priority, diffServe amd IP TOS

Specification

PON interface	4 GEPON interfaces SFF optical module SC/PC connector single mode, single-strand 1310nm burst receive 1490nm continuous transmit Symmetric 1.25Gbps 20km distance Split ratio: 1:32 and 1:64 Indicators: LNK, ACT
Combo interface (Copper interface)	4*10/100/1000M Auto-negotiation supported RJ45 connector Full/half duplex mode Flow control at both modes Auto MDI/MDI-X 100m distance Indicators: LNK, ACT
Combo interface (Optical interface)	4*1000M SFP optical module Full duplex mode Auto-negotiation supported Flow control supported 80km transmission distance Indicators: LNK, ACT CWDM wavelength specific SFP module supported
SNMP management port	1*10/100M Auto-negotiation supported RJ45 connector Full/half duplex mode Flow control at both modes Auto MDI/MDI-X Indicator: LNK/ACT, 100M

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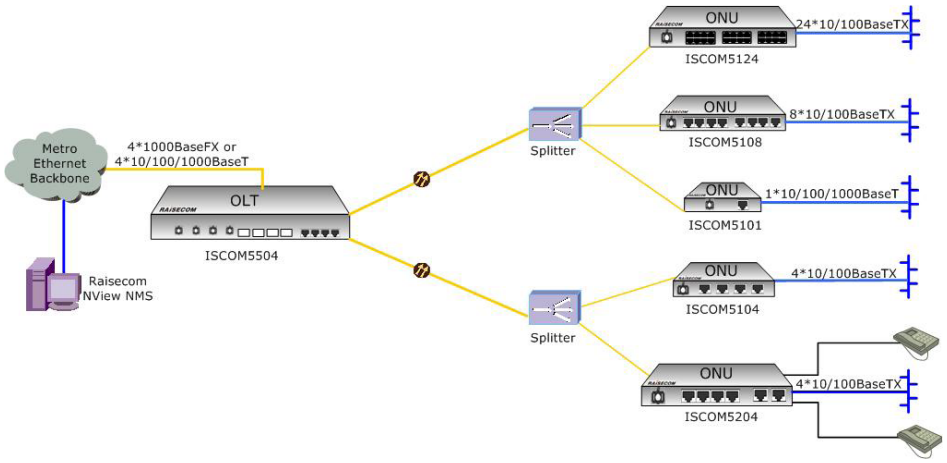
Queue schedule algorithm	Strict Priority (SP), Weighted Round Robin (WRR), Bounded delay and hybrid (SP + WRR) schedule
ACL	Support L2 - L4 packet filtering based on source MAC address, destination MAC address, source IP address, destination IP address, port, protocol, VLAN, VLAN range, MAC address range and illogical frames.

Typical application



Ordering information

ISCOM5504-AC/D-20	Optical Line Terminal of GEPON system, provides 4 single-strand fiber PON interfaces for communicating with downlink ONU, 4 gigabit combo interfaces enable both 10/100/1000BaseT and 1000M interfaces for uplinks, two AC power supplies
ISCOM5504-DC/D-20	Optical Line Terminal of GEPON system, provides 4 single-strand fiber PON interfaces for communicating with downlink ONU, 4 gigabit combo interfaces enable both 10/100/1000BaseT and 1000M interfaces for uplinks, two DC power supplies
ISCOM5504-AC_DC-20	Optical Line Terminal of GEPON system, provides 4 single-strand fiber PON interfaces for communicating with downlink ONU, 4 gigabit combo interfaces enable both 10/100/1000BaseT and 1000M interfaces for uplinks, one AC and one DC power supply
Transmission distance: for 1:32 networking topology, 20km; for 1:64 networking topology, 10km	

Appendix Specification of PON interface

Optical Connector	Wavelengh (nm)	Rx sensitivity (dBm)	Tx Power (dBm)	Typical distance (km)	Overload point (dBm)
SC/PC	1490	<-27	+2 - +7	20	>-6dBm

Serial port configuration	9600bps/8bit/none parity/1 stop bit/none flow control
Indicators	Power Supply (PWR1, PWR2) System (flashing)
Dimension	442(W)*360(D)*1U(H)mm
Weight	6kg
Power supply	AC: 90~264V, 47~63Hz DC: 36~75V
Power consumption	≤ 60W (at max load)
Working ambience	Temp: 0~45 centigrade RH: 20~90% non-condensing
Storage ambience	Temp: -25~85 centigrade RH: 20~90% non-condensing
Safety compliance	CE marking FCC Class A

Compliance

Standards & protocols	IEEE802.3-2002 IEEE802.3ah-2004 IEEE802.1w IEEE802.3ad IEEE802.3x full duplex on 10BaseT, 100BaseTX, and 1000BaseT ports IEEE802.1D Spanning Tree Protocol IEEE802.1p CoS Prioritization IEEE802.1Q VLAN IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.3ab 1000BaseT IEEE802.3z 1000BaseX 100BaseBX (SFP) 100BaseFX (SFP) 100BaseLX (SFP) 1000BaseBX (SFP) 1000BaseSX 1000BaseLX/LH 1000BaseZX RMON I and II standards SNMPv1/v2c/v3 RFC2233 RFC2574 RFC2819 RFC3273 RFC3418

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