RAISECOM
Raisecom Technology Co., Ltd

Datasheet

DLCOM2096 IPDSLAM

DLCOM2096 is a mini chassis IPDSLAM device which can meet rapid and integrated access requirement. It provides triple-play solution over existing copper network or EPON fiber network for enterprises. It also provides 4 service slots and all types of service modules can be inserted any of them. With these powerful service modules, DLCOM2096 can support xDSL, POTS and FE access business.
For existing copper network, it can be regarded as a traditional IPDSLAM to utilize the existing copper network without any network upgrade. For new fiber network, it can deployed as ONU with IPDSLAM interface to aggregate various service such as xDSL, VoIP. Together with copper and fiber network, it can present carriers an idea solution for deploying xDSL+FTTx mixed topology.

DLCOM2096 IPDSLAM

Feature

xDSL function	Support ADSL/ADSL2/ADSL2+/VDSL/VDSL2 Maximum transmission distance is 6Km Maximum speed is 100Mbps Maximum allowed ADSL2+ channels is 96 Maximum allowed VDSL2 channels is 64
PON function	Support IEEE802.3ah EPON Maximum transmission distance is 20Km at 1:32 split ratio
Voice function	Support SIP/SDP Support H.248 Support various speed fax service, such as 2400bps, 4800bps, 7200bps, 9600, 12000, 14400bps. Maximum allowed voice channels is 192
SMC control module	Configure, manage and control line modules. Aggregate, protocol process and forward ATM cell from ADSL/VDSL line module to IP uplink. Selected uplink port that include EPON port or 2GE ports (1*electrical and 1*optical port or 2*optical ports or 2*electrical ports) Support narrow bandwidth VoIP service with additional VoIP sub-module. Local and remote management
Flexibility	Support 24 channels ADSL line module 48 channels narrow bandwidth line module 16 channels VDSL2 line module 16 FE ports line module
QoS	Up to 4 output queues QoS policy based on CoS and DSCP Strict Priority (SP) queue 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.
VLAN	IEEE802.1Q, double tagging (Q-in-Q), 4K active VLAN,IEEE802.1ad

Specification

Chassis	1-4 slots (from top to bottom) Fan tray is located at the left of chassis
SMC line module (selected PON or GE port for uplink)	Fixed PON port SC/PC connector single mode, single-stran 1310nm burst receive 1490nm continuous trans Symmetric 1.25Gbps 20km distance Split ratio: 1:2, 1:4, 1:8, 1:16, 1:32 and 1:64 Indicators: LNK, ACT;
SMC line module (selected PON or GE port for uplink)	Electrical port 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; SFP optical module 1000M auto-negotiation supported RJ45 connector Full/half duplex mode
ADSL line module	ADSL/ADSL2/ADSL2+ 24 channels ADSL for end customers G.992.1&G.992.3&G.992.5
POTs line module	48 channels voice for remote users Circuit and ringing current detection

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Multicast	IGMP Snooping V1/V2/V3 IGMP Proxy Multicast VLAN Registration (MVR) Support more than 255 multicast groups
Spanning tree	STP and RSTP
Port rate limiting	Based on ingress and egress of each port, 64K increment
xDSL management	ADSL port enable and disable PVC enable/disable and configure/inquire ADSL template configuration, modification, deletion, binding and unbinding.
Management	Local management through console port Remote management through SNMP and Telnet SNMP V1/V2/V3

Serial port configuration	9600bps/8bit/none parity/1 stop bit/none flow control
Dimension	482.6(W)*88.1(H)*240(D) mm
Weight	< 3.8KG (only chassis)
Power supply	AC: 85~264V, 47~63Hz DC: -36 ~ -72V
Power consumption	Redundant power supply ≤ 120W (at max load)
Working environment	Temp: -5 ~ 50 Celsius RH: < 90% non-condensing
Safety compliance	CE certification

Feature of DLCOM2096-SMC

- Configure, manage and control line modules.
- Selected uplink port that include EPON port or 2GE ports (1*electrical and 1*optical port or 2*optical ports or 2*electrical ports)
- Aggregate, protocol process and forward ATM cell from ADSL/VDSL line module to IP uplink.
- Support narrow bandwidth VoIP service with additional VoIP sub-module.
- Telnet/console/SNMP management

Feature of DLCOM2096-24ADSL

- 24 channels ADSL/ADSL2/ADSL2+ for remote users.
- Transform ATM cells to IP packets
- Maximum transmission distance is 6Km.
- Maximum downlink rate is 24Mbit/s and maximum uplink rate is 1Mbit/s.
- PSTN connects to CO PSTN switch, USER connects to remote users
- Hot plug
- Comply with ADSL/ADSL2/ADSL2+ annexA, annexM and annexL

Feature of DLCOM2096-48POTS

Compliance

Standards & protocols	For xDSL module: G.992.1 G.992.3 G.992.5 G.991.2 G.993.1 G.993.2 AnnexA, annexM, annexL For PON module: IEEE802.3-2002 IEEE802.3ah-2004 For Ethernet port: IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.3ab 1000BaseT IEEE802.3z 1000BaseX 100BaseBX (SFP) 100BaseFX (SFP) 100BaseLX (SFP) 1000BaseBX (SFP) 1000BaseSX 1000BaseLX/LH 1000BaseZX IEEE802.1w IEEE802.3ad IEEE802.3x full duplex on 10BaseT, 100BaseTX, and 1000BaseT ports

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48 channels narrow bandwidth voice POTS for remote users.
Circuit and ringing current detection.
Provide VoIP service with additional VoIP sub-module on SMC line module.
Hot plug

Standards & protocols	For VoIP: RFC 3261/2543 RFC 2327 RFC 3550 ITU-T H.248.v1/v2/v3 IEEE802.1D Spanning Tree Protocol IEEE802.1p CoS Prioritization IEEE802.1Q VLAN SNMPv1/v2c/v3

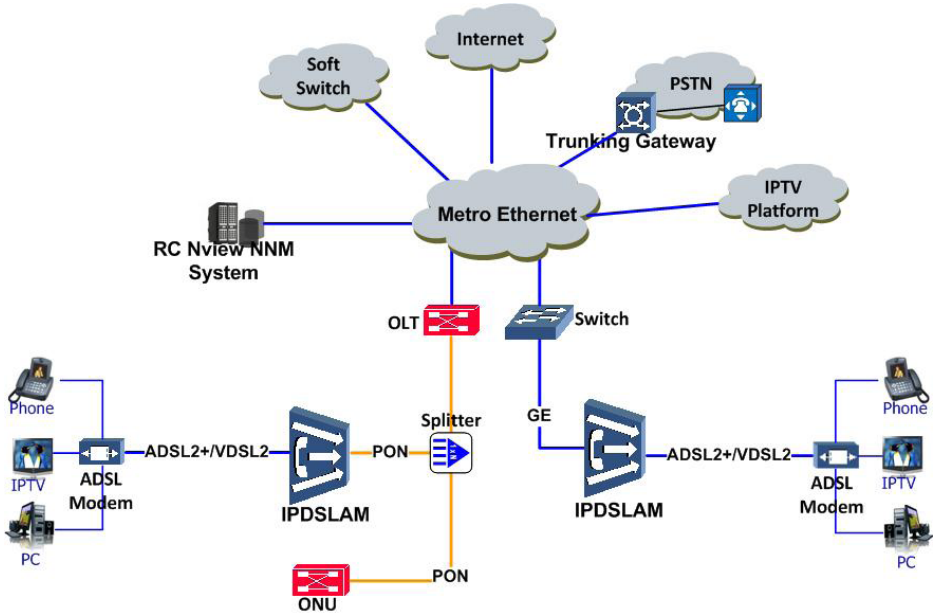
Feature of DLCOM2096-DC

-48VDC input. The range of DC from -36VDC to -72VDC.
Provide -48VDC and 3.3VDC output.

Feature of DLCOM2096-Chassis and Fan

19" 2U chassis with 4 slots.
TProvide exclusive slot to power supply module.
Provide exclusive slot to SMC module.
Provide fan tray on the left of chassis.
Fan is hot plug.

Typical Application



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Ordering Information

Part Number	Description
DLCOM2096-4	2U, 4-slots chassis, without any modules and power supply.
DLCOM2096-SMC-EPON	Master control module (without voice function) with one PON uplink port.
DLCOM2096-SMCVPA-EPON	Master control module (voice function available) with one PON uplink port.
DLCOM2096-SMC-2GE	Master control module (without voice function) with two GE uplink ports, one fixed GE electrical port and one optical port for additional SFP.
DLCOM2096-SMCVPA-2GE	Master control module (voice function available) with two GE uplink ports, one fixed GE electrical port and one optical port for additional SFP.
CBL-VOICE-SCSI50M(45)/NC-3m	Additional SCSI cable for DLCOM2096-24ADSL or DLCOM2096-48POTS module.
DLCOM2096-SMC-2GE-T	SMC module with 2*electrical GE ports for uplink
DLCOM2096-SMC-2GE-F	SMC module with 2*optical GE ports for uplink
DLCOM2096-24ADSL	24 channels ADSL/ADSL2+ for remote users.
DLCOM2096-48POTS	48 channels narrow bandwidth voice POTS for remote users.
DLCOM2096-16VDSL2*	16 channels VDSL2 for remote users.
DLCOM2096-16FE**	16 FE ports for remote users.
DLCOM2096-Power-DC	-48VDC power supply

* 16 channels VDSL2 module will be available on next version
** 16 FE ports module is supported on next version

Additional SFP Ordering Information

Part Number	Description
USFP-Gb/M-R	1.25G-850nm-550M, multi mode
USFP-Gb/S1-R	M1.25G-1310nm-15KM, single mode
USFP-Gb/LH1-D-R	1.25G-1310nm-40KM, digital detection, single mode
USFP-Gb/S2-R	1.25G-1550nm-40KM, single mode
USFP-Gb/S3-R	1.25G-1550nm-80KM, single mode
USFP-Gb/SS13-R	1.25G-1310nm-15KM, single mode, single fiber, bidirection
USFP-Gb/SS15-R	1.25G-1550nm-15KM, single mode, single fiber, bidirection
USFP-Gb/SS24-R	1.25G-1490nm-40KM, single mode, single fiber, bidirection
USFP-Gb/SS25-R	1.25G-1550nm-40KM, single mode, single fiber, bidirection
USFP-Gb/M-D-R	1.25G-850nm-550M, digital detection, multi mode
USFP-Gb/S1-D-R	1.25G-1310nm-15KM, digital detection, single mode
USFP-Gb/S2-D-R	1.25G-1550nm-40KM, digital detection, single mode

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Part Number	Description
USFP-Gb/S3-D-R	1.25G-1550nm-80KM, digital detection, single mode
USFP-Gb/SS13-D-R	1.25G-1310nm-15KM, digital detection, single mode, single fiber, bidirection
USFP-Gb/SS15-D-R	1.25G-1550nm-15KM, digital detection, single mode, single fiber, bidirection
USFP-Gb/SS24-D-R	1.25G-1490nm-40KM, digital detection, single mode, single fiber, bidirection
USFP-Gb/SS25-D-R	1.25G-1550nm-40KM, digital detection, single mode, single fiber, bidirection

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