

OPCOM3105-155 STM-1 ADM and TM

Compactness, cost-efficiency and versatility highlight the OPCOM3105, which is good suited for transmit voice and data. The service offered range from traditional E1 to new service such as Fast Ethernet. OPCOM3105 provides fixed 4 ports E1, 4 ports Fast Ethernet over 2 VCG individually, and one E-SUBM expansion slot, 4E1 interface, 1(or 2) V.35 interface, Fast Ethernet over 1~4 E1 module for it. For Ethernet over SDH service, the introduction of standard Generic Framing Procedure (GFP) mapping, Link Access Procedure SDH (LAPS) virtual concatenation, and Link Capacity Adjustment Scheme (LCAS) for dynamic bandwidth allocation are used by OPCOM3105. These features enable OPCOM3105 is next-generation STM-1 access equipment.

Feature

Standalone Mini SDH Add/drop Multiplexer(ADM) and Terminal Multiplexer(TM), two SDH STM-1 interface, can be configured to 2 independent line or 1+1 mode

Fixed to provide 4 E1 unbalanced interface, can extend 2/4 E1 interface or 2 V.35 interface or 2 10/100M Ethernet interface at most by the expanding-slot

Fixed to provide 3 Ethernet interface(over 1st VCG) with switching function, and 1 independent Ethernet interface (over 2nd VCG)

Two SDH STM-1 interface, can be configured to 2 independent line or 1+1 mode

189x189 TU-12 crossover-connection function, flexible in network topology

Support point-to-point, chain topology and ring topology patterns, provide 1+1 Multiplex Section Protection and 1+1 Lower order Path Protection (LPP), the switch protection time is less than 50 ms

The clock in support of following, free vibration mode, compliant with ITU-T G.813 recommendation. To follow optical line clock or E1 line clock can be customized in following mode

Support E1 retiming function, recovering clock of any one of the 1~4 E1 can be used as the transmitting clock for other E1 line

ALS (Auto-Laser-Shutdown) function can efficiently control the output of optical signal in disconnection condition

Dying Gasp function can detect the remote device power off alarm trap

Local optical interface external loop back, local E1 external loop back and local E1 internal loop back facilitate link detection

SNMP interface and CONSOLE interface provide in-band and out-of-band network channel, in support of local and remote software online upgrade

Complete alarm trap, performance monitory function

Typical Application

Point-to-point Multi-Service Transport STM-1 TM, the 2 VCG in support of Ethernet Spanning Tree truck



OPCOM3105-155 front panel



OPCOM3105-155 rear panel

Specification

Aggregation 2 STM-1 fiber optical Interface

Standard: compliant with ITU-T G.707

Coding type: scrambling NRZ

Transmission speed: 155.52 Mbps

Jitter: compliant with ITU-T G.783, G.825

Tributary 4 E1 electrical Interface:

Interface rate: 2048Kbps±50ppm

Standard: ITU-T G.703, G.704, G.823

Coding type: HDB3

Interface type: 75ohm unbalanced BNC

Tributary 4 Fast Ethernet electrical interface

Interface: 10/100M FDX/HDX

Auto-Negotiation, Auto-MDI/MDIX

standard: IEEE802.3, 802.3u

Flow control: IEEE802.3ah, back press

MTU: 1600 byte

Interface type: RJ45 UTP

Advanced

Management: SNMP/Telnet/Console

Network management channel: in-band/out-of-band

Update: support local and remote on-line update.

EOS service: support VCAT, VCG, LCAS

VC increment: VC12 / VC3

Encapsulation: GFP / LAPS

Ambience

Temp: -5 ~ 70 degrees centigrade operating

Humidity: 5~95% no condensing

Power Supply: AC P.S: 180~260V,

DC P.S: -48V(-36~-72V)

+24V(+12~+36V)

Consumption: <10W

Dimension and Weight

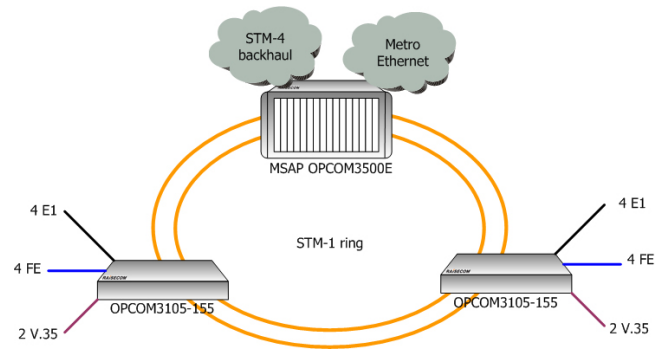
Physical outlook: 19-inch standalone device with height of 1U

Dimension: 440mm(W)x43.6mm(H)x210mm(D)

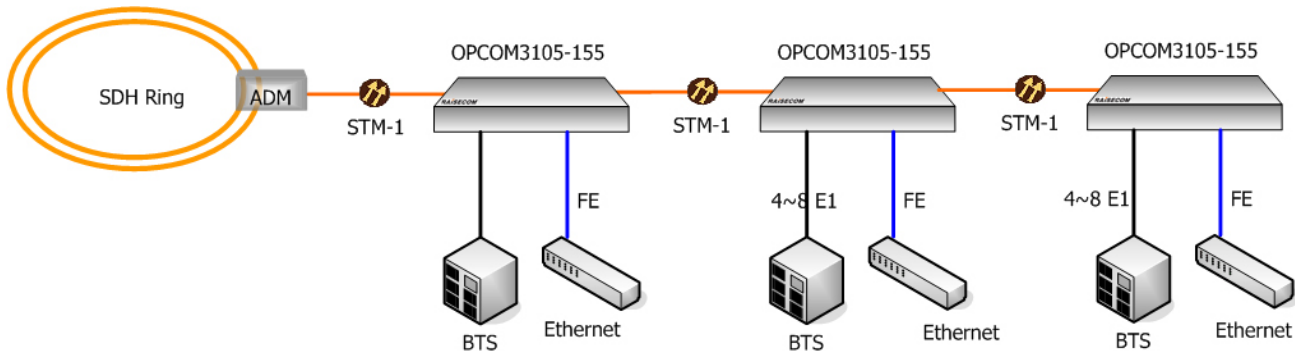
Weight < 2.9kg

Typical Application (continue)

OPCOM3101-155 can organize ring topology network at STM-1 speed with flexible service configuration and high reliability, it also can realize 2F SNCP function



Chain topology is made up of several TM and several ADM devices. Data is often transmitted in bi-direction and less optical fiber is needed



Ordering Information

Part Number	Description
OPCOM3105-155-X-Y	Standalone, 19inch 1U high, two STM-1 optical interfaces, fixed 4 E1 unbalanced ports, 4 FE ports, and one E-SUBM extension slot for maximum 8 E1 capability, ADM and TM, SNMP manageable
X	STM-1 Fiber Optical Interface type M - multi-mode dual strand fiber, S1, S2, S3 - both 1st and 2nd interface are single mode, dual strand fiber, SS1 - 1st interface is SS13, 2nd interface is SS15, single mode, single strand fiber SS2 - 1st interface is SS23, 2nd interface is SS25, single mode, single strand fiber
Y	Y means power supply type AC (110V&230V/AC), DC (-48V/DC), DC24 (+24V/DC)
E-SUBM-FV35	Single V.35 interface module, N*64Kbps, DCE mode
CBL-V35-HDB26M/M34F-2m	V.35 DCE M34 female connector adaption cable, 2 meters
E-SUBM-2FV35	2 V.35 interface module, N*64Kbps, DCE mode
CBL-V35-HDB26M/2M34F-2m	2 V.35 DCE M34 connector adaption cable, 2 meters
E-SUBM-2E1	2 E1 interface module, unbalanced 75ohm BNC
E-SUBM-4E1-BL	4 E1 interface module, balanced 120ohm RJ45
E-SUBM-2FE	2 FE interface module, Ethernet over E1 function, 2 FE over 2 E1 individually
E-SUBM-FE4E1	Single FE interface module, Ethernet over E1 function, 1 FE over 1~4 E1 inverse multiplexing

Fiber Optical Interface Characteristics

Part Number	Connector Type	Wavelength(nm)	Power(dBm)	Receiver Sensitivity(dBm)	Typical Range(km)	Attenuation(dB/km)
S1	DSC	1310	-15~-8	<-34	0~25	0.5
S2	DSC	1310	-5~0	<-34	10~60	0.5
S3	DSC	1550	-5~0(DFB)	<-36	15~120	0.25
SS13	SC/PC	1310	-12~-3	<-30	0~25	0.5
SS15	SC/PC	1550	-12~-3	<-30	0~25	0.5
SS23	SC/PC	1310	-5~0	<-32	10~50	0.5
SS25	SC/PC	1550	-5~0	<-32	10~50	0.5