

OPCOM3107 STM-1 ADM and TM

Compactness, cost-efficiency and versatility highlight the OPCOM3107, which is good suited for transmit voice and data. The service offered range from traditional E1 to new service such as Fast Ethernet. OPCOM3107 provides fixed 8 or 16 ports E1, 4 ports Fast Ethernet over 2 VCG individually. 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 OPCOM3107. These features enable OPCOM3107 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, redundant power supply

Optional 8 or 16 E1 balanced interface

Totally 4 ports Ethernet, 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 1st~4th 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

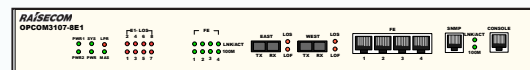
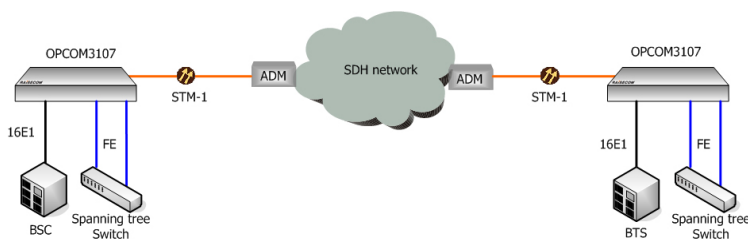
Local optical interface external loop back, local E1 external loop back and local E1 internal loop back facilitate link detection

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

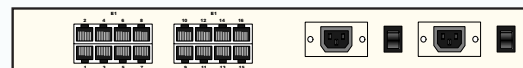
Complete alarm trap, performance monitory function

Typical Application

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



OPCOM3107-8E1-BL front panel



OPCOM3107-16E1-BL 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 8 or 16 E1 electrical Interface:

Interface rate: 2048Kbps±50ppm

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

Coding type: HDB3

Interface type: optional 75ohm unbalanced BNC or 120 ohm balanced RJ45

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

Redundant Power Supply:

dual AC P.S: 180~260V, dual DC P.S: -48V(-36~-72V)

Consumption: <15W

Dimension and Weight

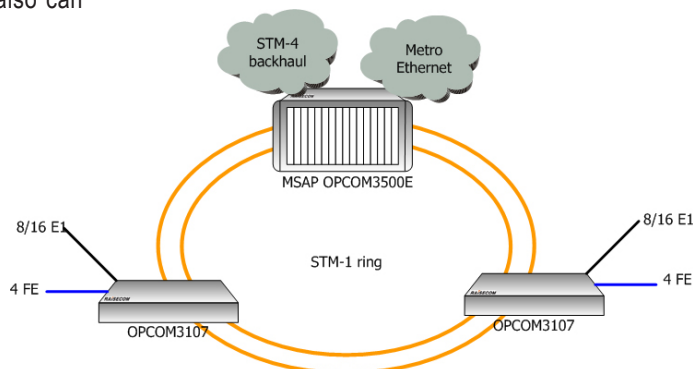
Physical outlook: 19-inch standalone device with height of 1U

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

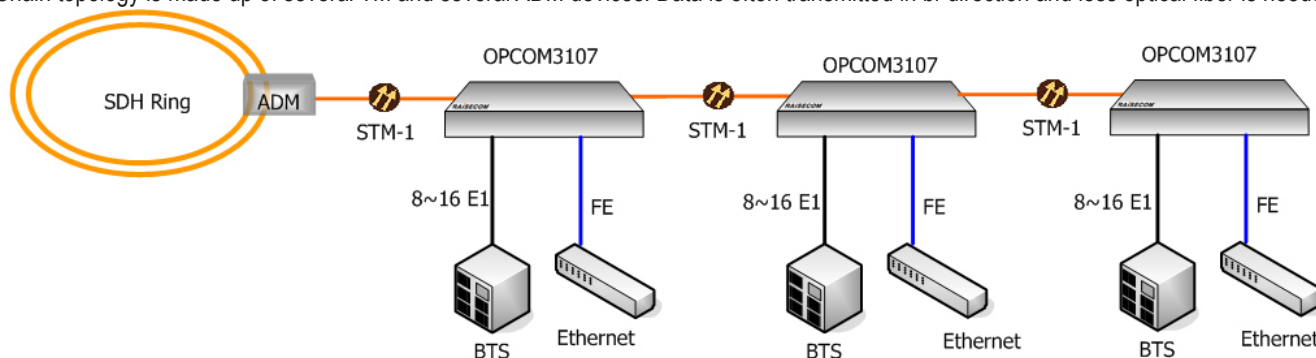
Weight < 2.9kg

Typical Application (continue)

OPCOM3107 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
OPCOM3107-8E1-X-Y	Standalone, 19inch 1U high, two STM-1 optical interfaces, redundant power supply, 8 E1 BNC unbalanced ports, 4 FE ports, ADM and TM, SNMP manageable
OPCOM3107-8E1-BL-X-Y	Standalone, 19inch 1U high, two STM-1 optical interfaces, redundant power supply, 8 E1 RJ45 balanced ports, 4 FE ports, ADM and TM, SNMP manageable
OPCOM3107-16E1-X-Y	Standalone, 19inch 1U high, two STM-1 optical interfaces, redundant power supply, 16 E1 BNC unbalanced ports, 4 FE ports, ADM and TM, SNMP manageable
OPCOM3107-16E1-BL-X-Y	Standalone, 19inch 1U high, two STM-1 optical interfaces, redundant power supply, 16 E1 RJ45 balanced ports, 4 FE ports, ADM and TM, SNMP manageable
X	Fiber Optical interface type M - both 1st and 2nd STM-1 interfaces are multi-mode dual strand fiber; S1, S2, S3 - both 1st and 2nd STM-1 interfaces are single mode, dual strand fiber SS1 - the 1st STM-1 interface is SS13, the 2nd STM-1 interface SS15, single mode, single strand fiber SS2 - the 1st STM-1 is SS23, the 2nd STM-1 interface is SS25, single mode, single strand fiber
Y	Y means dual power supply type AC (dual 110V&230V/AC), DC (dual -48V/DC), DC24 (dual +24V/DC)

Fiber Optical Interface Characteristics

Part Number	Connector Type	Wavelength(nm)	Power(dBm)	Receiver Sensitivity(dBm)	Typical Range(km)	Attenuation(dB/km)
S1	DSC-RJ45	1310	-15~-8	<-34	0~25	0.5
S2	DSC-RJ45	1310	-5~0	<-34	10~60	0.5
S3	DSC-RJ45	1550	-5~0(DFB)	<-36	15~120	0.25
SS13	SC/PC-RJ45	1310	-12~-3	<-30	0~25	0.5
SS15	SC/PC-RJ45	1550	-12~-3	<-30	0~25	0.5
SS23	SC/PC-RJ45	1310	-5~0	<-32	10~50	0.5
SS25	SC/PC-RJ45	1550	-5~0	<-32	10~50	0.5