

## RC953E-3FE16E1 Inverse Multiplexing Ethernet Gateway

RC953E-3FE16E1 is an Inverse Multiplexing Ethernet Gateway that achieves a seamless interconnection between customers connected over the TDM network and customers connected over the packet network. It can be deployed in central site for aggregating subscribers or at customer premises enabling Inverse Multiplexing for enlarging much more bandwidth. RC953E-3FE16E1 provides carriers and

service providers with a flexible, reliable and scalable Ethernet over TDM solution, realizing the assured SLA for different services through VLAN based E1 circuit resource assignment at customer premises. Additionally its advanced features such as automatic E1 link adjustment, Q-in-Q, QoS (Quality of Service), RC953E-3FE16E1 provides a high-quality Ethernet Service delivery by using TDM network resources



RC953E-3FE16E1  
Inverse Multiplexing  
Ethernet Gateway

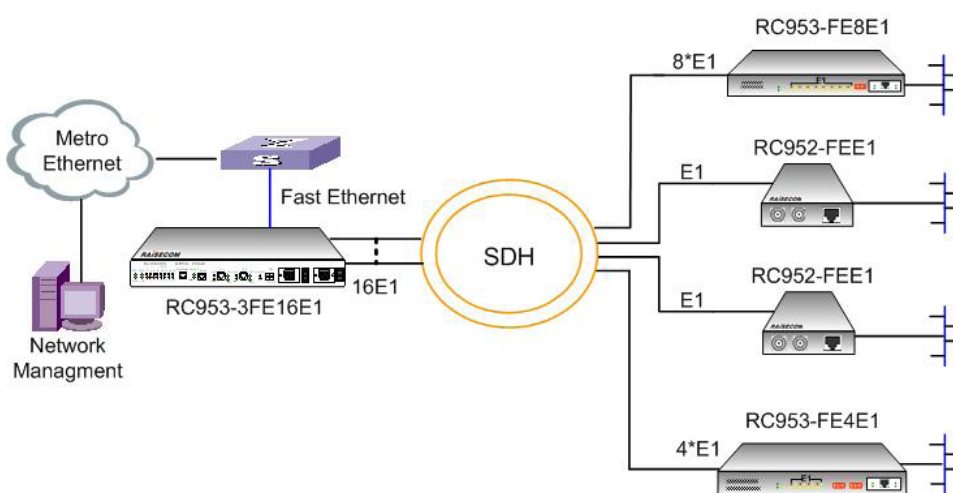
### Feature

Working mode	*Single E1 Mode for aggregating up to 16 remote sites (with RC952 located in remote sites) *Inverse Multiplexing mode for flexibly transmitting Ethernet Service over multiple E1 links (with RC953-FE4E1/8E1 in remote sites)
E1 mode	*Single E1 Mode Framed E1 and Unframed E1 mode *Inverse Multiplexing Mode Framed E1 mode (PCM31, FAS+CRC4 by default)
SLA assurance	Bandwidth allocation based on VLAN ID gives mission critical services a better service
Automatic E1 Link Adjustment	In Inverse Multiplexing mode, RC953-3FE16E1 can automatically adjust the E1 link capacity of transmission channel if one or more E1 link fails and assures the high-reliable Ethernet data delivery
E1 interface type	75ohm unbalanced or 120ohm balanced
storm restraining	Restrain broadcast, multicast, DLF frame
Ethernet Encapsulation	HDLC-over-E1
E1 Loop Back	Support local and remote loop back
BERT function	Inner BERT enables a flexible way of testing E1 links
Enhanced E1 link monitor	Traffic counter provides an effective E1 link monitoring by statistics collection of Rx, Tx, total and error packets amount on E1 port
Clock Mode	Master and Slave
Maximum Transmission Unit	1632 bytes
MAC Address Table	8192 MAC Address
Trunking	Link Aggregation of Ethernet port enables a redundant Ethernet access
Flow control	IEEE802.3x in full duplex
QOS	Provides QoS utilizing four priority queues per COS
VLAN	VLAN transparent forwarding VLAN stacking (Q-in-Q)
Tranparent transmission	Support BPDU, Dot1x, GMRP, GVRP, and ICMP on per port

### Specification

Electrical fast Ethernet port	2* 10/100BaseT Connector: RJ-45 MDI/MDIX auto crossover IEEE802.3x flow control
Optical fast Ethernet port	1*100M FX Connector: LC IEEE802.3x flow control
E1 port	16*E1 Connector: RJ-45 or BNC Impedance: 120 or 75 ohm Line coding: HDB3
CONSOLE Port	RJ-45
System Indicator	SYS, Flashing indicates CPU works normally
Power Supply Indicaor	PWR, ON indicates the device is powered on; PWR1, ON indicates first power supply works normally; PWR2, ON indicates second power supply works normally.
Indicators for Ethernet ports	LNK/ACT and 100M indicator for each Ethernet port
Indicators for E1 ports	LOS, LOF, AIS, CRC and GID alarm indication for both local and remote E1
Dimension	430(W)*266(D)*444.5(H)mm
Weight	3.3kg
Power supply	AC: 90~264V, 47~63Hz DC: - 36~-75V

## Typical Application



Power consumption	≤ 25W (at max load)
Working ambience	Temp: -5~50 centigrade RH: ≤90% non-condensing
Storage ambience	Temp: -25~85 centigrade RH: 20~90% non-condensing
Safety compliance	CE certification

## Compliance

Standards & protocols	IEEE802.3 Ethernet IEEE802.3x full duplex on 10BaseT, 100BaseTX, 100BaseFx ports IEEE802.3u 100BaseTX SNMPv1/v2c/v3 ITU-T G.703 ITU-T G.704 ITU-T G.823
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## Ordering Information

- RC953E-3FE16E1- AC Inverse Multiplexing Ethernet Gateway, 16\*E1, 3\*FE ( 2 copper ports and 1 SFP-based optical port ) , 75ohm unbalanced RJ-45 E1 connector with redundant AC power supply.
- RC953E-3FE16E1- DC Inverse Multiplexing Ethernet Gateway, 16\*E1, 3\*FE ( 2 copper ports and 1 SFP-based optical port ) , 75ohm unbalanced RJ-45 E1 connector with redundant DC power supply.
- RC953E-3FE16E1- BL-AC Inverse Multiplexing Ethernet Gateway, 16\*E1, 3\*FE ( 2 copper ports and 1 SFP-based optical port ) , 120ohm balanced RJ-45 E1 connector with redundant AC power supply.
- RC953E-3FE16E1- BL-DC Inverse Multiplexing Ethernet Gateway, 16\*E1, 3\*FE ( 2 copper ports and 1 SFP-based optical port ) , 120ohm balanced RJ-45 E1 connector with redundant DC power supply.

## Annex - Fiber Interface Specification

Part Number	Optical Connector	Wavelength (nm)	RX sensitivity (dBm)	Tx Power (dBm)	Typical distance (km)
USFP-03/M	LC	1310	<-29	-20 ~ -14	2
USFP-03/S1	LC	1310	<-34	-15 ~ -8	15
USFP-03/S2	LC	1310	<-34	-5 ~ 0	40
USFP-03/S3	LC	1550	<-34	-5 ~ 0	80
USFP-03/SS13	LC	1310	<-28	-15 ~ -8	15
USFP-03/SS15	LC	1550	<-28	-15 ~ -8	15
USFP-03/SS23	LC	1310	<-32	-5 ~ 0	40
USFP-03/SS25	LC	1550	<-32	-5 ~ 0	40