

Raisecom Technology Co., Ltd.

## RC1201-2FEE1T1 TDMoverIP Access Gateway

3 Ethernet ports, 2 for user side and one for network side

Datasheet

RC1201-2FEE1T1 is a TDMoverIP access gateway device for enterprises and mobile operators, offering TDM lease line extension or TDM traffic backhaul over a packet switched network. It provides a legacy over Ethernet/IP solution supporting transmission of E1/T1 streams over IP and Ethernet-based networks.

can be configured from 2 10/100BaseT and 1 1000BaseX port. It converts data streams from its E1/T1 ports into packets for transmission over the packet switching network such as MPLS and Ethernet network. RC1201 TDMoverIP devices are working in pairs.



RC1201-2FEE1T1 is integrated with one E1/T1 and 2 local Ethernet traffic ports which

Transparent Ethernet bridging

Feature

Ethernet interface

RC1201-2FEE1T1 **TDMoverIP Access Gateway** 

#### Specification

	User bandwidth profile by rate-limiting and VLAN filtering	opecin	Cation	
	VLAN tagging and stacking (Q-in-Q)	E1 interface	1 port	
TDM interface	1 E1 or T1 port E1 balanced and unbalanced or T1 options G.703 unframed and G.704 framed modes CAS and CRC generation for E1 circuit		Date rate: 2.048Mbps Line code: HDB3 Framing: unframed or framed with or without CRC-4	
TDM payload type	CESoPSN, SAToP, HDLC, AAL1		Signaling: CAS and	
TDMoverIP for Pseudowire Emulation	E1/T1 communication over Packet Switching Network Support both framed and unframed E1/T1 Configurable buffer compensation for network packet jitter Dedicated external clock injection port QoS support by ToS and VLAN per 802.1p and 802.1Q		transparent CCS Line impedance: 120/75 Ohm Jitter: per ITU-T G.823 Connector: RJ45 balanced and BNC unbalanced	
TDMoverIP timing	Adaptive: the clock is recovered from the Ethernet network side interface Internal: the master clock source for the TDM circuit is provided by internal crystal oscillator External: an external clock injection is provided for synchronization Loopback: the transmit clock is derived from the E1/T1 receiving clock	T1 interface	1 ports Bit Rate: 1.544Mbps Line code: B8ZS/AMI Comply with Bellcore GR- 499-CORE, ANSI T1.403,	
Ethernet switching functions	VLAN creation, deletion and configuration 4 port modes: access, tunnel, trunk and hybrid Port isolation configuration		Jitter: per ITU-T G.824 Connector: 100Ω balanced, RJ-45	
	Link aggregation configuration Port mirroring configuration Per port bandwidth profile and rate limiting	Ethernet interface	1 network port & 2 user ports Data rate: 2 x 10/100Mbps 1 x 1000Mbps	
	MAC address table management Up to 4 output queues QoS policy based on CoS and DSCP Ethernet port loopback detection ACL configuration based on MAC	Bundles	Up to 64 bundles Payload: CESoPSN, SAToP, HDLC, AAL1 PSN: UDP/IP, MPLS, MEF TDM Bytes: 1-1500	
SFP module function	SFP module basic information (module type, media type, connector, manufacturer information, speed, wavelength, etc) SFP information retrieve (existing, speed, LOS and fault stats) Digital Diagnostic (Tx power, received optical power, temperature, supply voltage, Tx bias current, etc) Alarm indication		Jitter buffer size: 0-250ms Destination bundle configure Clock recovery: configurable VLAN:untag, tag & double tag Active VLAN: 4K TPID: configurable	
Management options	Local management through console port Remote management through SNMP and Telnet		VLAN priority: 0-7 Dest IP address: configurable	

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## Typical Application



Point-to-point E1/T1 and LAN extension over Packet Switching Network

#### **Ordering Information**

Part Number	Description
RC1201-2FEE1T1-AC	1U 19" standalone, 1 E1/T1 interfaces, 2 10/100BaseT interfaces, 1 1000BaseX (SFP) interface, AC power supplies
RC1201-2FEE1T1-DC	1U 19" standalone, 1 E1/T1 interfaces, 10/100BaseT interfaces, 1 1000BaseX (SFP) interface, DC power supplies

Timing	Internal, external, loopback and adaptive
Loopback	E1/T1 local and remote loopback
Statistics	E1/T1 per G.826 & RFC2495 Ethernet per RFC2819 Receive buffer indication SFP Digital Diagnostic
Dimension	260(W)*44(H)*175(D) mm
Weight	< 1.5KG
Power supply	AC: 180~260V, 50Hz DC: -36 ~ -72V
Power consumption	≤ 10W (at max load)
Working	Temp: -5 ~ 50 Celsius
environment	RH: < 90% non-condensing
Safety compliance	CE certification

### Compliance

Standards & protocols	For TDM interface: ITU-T G.703 ITU-T G.704 ITU-T G.706 ITU-T G.732 ITU-T G.823
	For Ethernet port: IEEE802.3x full duplex on 10BaseT and 100BaseTX IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.1p IEEE802.1Q
	SNMPv1/v2c/v3

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### RC1201-2FEV35 TDMoverIP Access Gateway

Datasheet

RC1201-2FEV35 is a TDMoverIP access gateway device for enterprises and mobile operators, offering TDM lease line extension or TDM traffic backhaul over a packet switched network. It provides a legacy over Ethernet/ IP solution supporting transmission of V.35 streams over IP and Ethernet-based networks.

be configured from 2 10/100BaseT and 1 1000BaseX port. It converts data streams from its V.35 port into packets for transmission over the packet switching network such as MPLS and Ethernet network. RC1201 TDMoverIP devices are working in pairs.



RC1201-2FEV35 is integrated with V.35 and 2 local Ethernet traffic ports which can

#### **TDMoverIP Access Gateway** Feature Ethernet interface 3 Ethernet ports, 2 for user side and one for network side Transparent Ethernet bridging Specification User bandwidth profile by rate-limiting and VLAN filtering VLAN tagging and stacking (Q-in-Q) V.35 interface 1 port TDM interface 1 V.35 port Date rate: 2.048Mbps Conforms ITU-T V.35 N\*64kbps(N=1~32) Phase:normal.invert Clock mode: Clock mode:system,terminal,adaptive system,terminal,adaptive TDM payload type CESoPSN, SAToP, HDLC , AAL1 Phase:normal.invert Work mode: DCE/DTE TDMoverIP for V.35 communication over Packet Switching Network Connector: Pseudowire Support both DTE and DCE interface Configurable buffer compensation for network packet jitter ISO2593(M34)female Emulation Dedicated external clock injection port T1 interface 1 ports QoS support by ToS and VLAN per 802.1p and 802.1Q Bit Rate: 1.544Mbps Line code: B8ZS/AMI TDMoverIP timing Adaptive: the clock is recovered from the Ethernet network side interface Comply with Bellcore GR-Internal: the master clock source for the TDM circuit is provided by internal 499-CORE, ANSI T1.403, crystal oscillator Jitter: per ITU-T G.824 External: an external clock injection is provided for synchronization Connector: Loopback: the transmit clock is derived from the V.35 receiving clock 100Ω balanced, RJ-45 Ethernet switching VLAN creation, deletion and configuration Ethernet 4 port modes: access, tunnel, trunk and hybrid 1 network port & 2 user ports functions Port isolation configuration interface Data rate: 2 x 10/100Mbps 1 x 1000Mbps Link aggregation configuration Port mirroring configuration Bundles Up to 64 bundles Payload: CESoPSN, SAToP, Per port bandwidth profile and rate limiting HDLC, AAL1 MAC address table management PSN: UDP/IP, MPLS, MEF Up to 4 output queues TDM Bytes: 1-1500 QoS policy based on CoS and DSCP Jitter buffer size: 0-250ms Ethernet port loopback detection ACL configuration based on MAC Destination bundle configure Clock recovery: configurable SFP module SFP module basic information (module type, media type, connector, VLAN:untag, tag & double tag manufacturer information, speed, wavelength, etc) function Active VLAN: 4K SFP information retrieve (existing, speed, LOS and fault stats) **TPID:** configurable Digital Diagnostic (Tx power, received optical power, temperature, supply VLAN priority: 0-7 voltage, Tx bias current, etc) Dest IP address: configurable Alarm indication Internal, external, loopback Timing Management Local management through console port and adaptive

options Remote management through SNMP and Telnet

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# Typical Application



Point-to-point V.35 and LAN extension over Packet Switching Network

#### **Ordering Information**

Part Number	Description
RC1201-2FEV35-AC	1U 19" standalone, 1 V.35 interface, 2 10/100BaseT interfaces, 1 1000BaseX (SFP) interface, AC power supplies
RC1201-2FEV35-DC	1U 19" standalone, 1 V.35 interface, 2 10/100BaseT interfaces, 1 1000BaseX (SFP) interface, DC power supplies

Loopback	V.35 local,remote,two-way loopback
Statistics	Ethernet per RFC2819 Receive buffer indication SFP Digital Diagnostic
Dimension	260(W)*44(H)*175(D) mm
Weight	< 1.5KG
Power supply	AC: 180~260V, 50Hz DC: -36 ~ -72V
Power consumption	≤ 10W (at max load)
Working environment	Temp: -5 ~ 50 Celsius RH: < 90% non-condensing
Safety compliance	CE certification

#### Compliance

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	For Ethernet port: IEEE802.3x full duplex on 10BaseT and 100BaseTX IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.1p IEEE802.1Q
	SNMPv1/v2c/v3

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