Datasheet

RC512-FE Remote Manageable Media Converter

RC512-FE 10/100M media converter is designed for accessing broadband subscribers at the edge of IP backbone network. It bridged the bandwidth gap between traditional TDM circuits and IP core by providing tailored bandwidth from 32K to 100Mbps. Thanks to the deployment of such media converter, bandwidth-thirst services such as IPTV and Video Conference were made possible.

RC512 series media converter performs the media conversion between 10/100M copper lines and 100M fiber links, effectively extending Ethernet transmission distance from 100m to 120km (need customization). According to carriers' specific network environment, different fiber optic options from single-mode to multimode, from single-strand to dual-strand can be ordered.

Its robustness and dependability has made it widely welcomed and popular with carriers and ISPs. RC512 shall always be working in pairs. Through SNMP agent, they can be both locally and remotely managed in Raisecom iEMS. This feature has greatly helped carriers to reduce truck rolls and total cost of ownership.

**RC512-FE Remote
Manageable
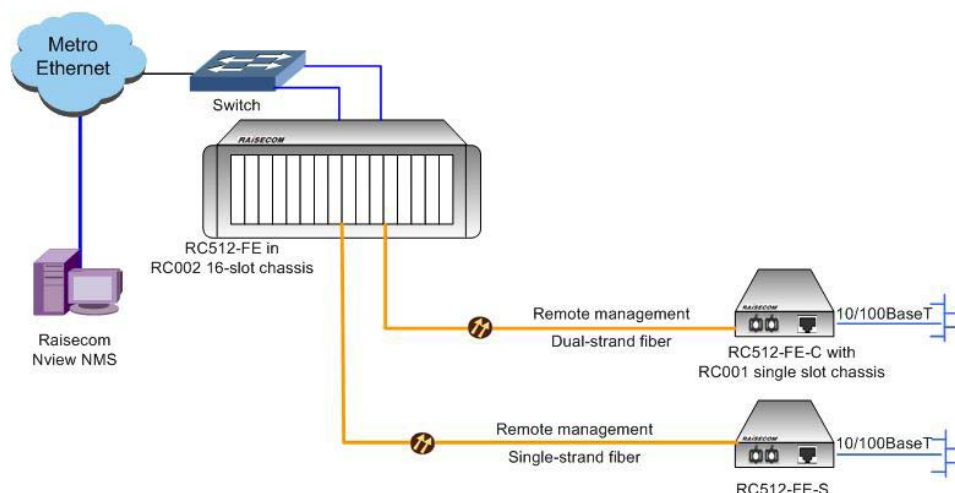Media Converter**

Feature

Construction	RC512-FE: central office module fitting into RC series manageable chassis RC512-FE-C: remote module fitting into RC series chassis RC512-FE-S: remote standalone unit
Fiber optic options	Single-mode/multimode, dual-strand fiber Single-mode, single-strand fiber
Transmission distance	Dual-strand fiber: up to 120km Single-strand fiber: up to 100km
Maximum transmission unit	1916 Bytes, long enough 'Baby Giant' for MPLS or other long-frame-length Ethernet services
Bandwidth management	Both upstream and downstream bandwidth can be limited at 32K increment. Flexible bandwidth from 32K to 100M can be assigned
Auto Negotiation	The auto negotiation of copper interface allows RC51X-FE to perform automatic configuration to achieve the best possible mode of operation over a link. Customers may disable this function to avoid the mode of operation dropping to the least common denominator when connecting with a non-negotiating device (i.e. 10Mbps, half-duplex)
Auto-MDI/MDIX	Automatically detects and configures the copper interface on the converter to crossover or straight-through cable configuration. This function eliminates an entire category of troubleshooting
Fault-pass-through	Fault-pass-through is a troubleshooting function that allows the media converter to monitor the optical link by shutting down the copper interface if receiving optical signals cannot be detected on fiber interface
Loopback	Loopback function enables network diagnostics from central office to remote site (from RC512-FE to RC512-FE-C/S). It provides a flexible method of troubleshooting while reducing carriers truck rolls and other maintenance costs.
Remote management capability	Through Raisecom iEMS network management system, carriers and network administrators are able to monitor, configure, and even reset both central office module and remote standalone/module in an integrated GUI, which helps to bring convenience and reduce truck rolls

Specification

Fixed Interface	1*fiber interface 1*copper interface
Indicators:	Power Supply RMD for remote unit RLK for optical port TLK for optical port ACT for optical port LNK/ACT for copper port 100M for copper port FDX for copper port
Speed	100M fixed fiber interface 10/100M auto-negotiation copper interface
Dimensions	Module: 91(W)*155(D)*25(H)mm Standalone: 120(W)*157(D)*32(H)mm
Power supply	AC: 90~264V, 47~63Hz DC: -75~-36V
Power consumption	≤ 5W (at max load)
Working ambience	Temp: 0~45 centigrade RH: 20~90% non-condensing
Storage ambience	Temp: -25~85 centigrade RH: 20~90% non-condensing
Safety Compliance	CE, UL and NEBS

Typical Application

Compliance

Standards & protocols	IEEE802.3 IEEE802.3x full duplex on 100BaseTX IEEE802.3u 100BaseTX

Ordering Information

RC512-FE-X	Remote manageable 10/100M Ethernet media converter, central office module fitting into RC series manageable chassis
RC512-FE-C-X	Remote manageable 10/100M Ethernet media converter, remote module fitting into RC series chassis
RC512-FE-S-X	Remote manageable 10/100M Ethernet media converter, remote standalone unit

X indicates the optical port specification:

	Optical Connector	Wavelengh (nm)	Rx sensitivity (dBm)	Tx Power (dBm)	Typical distance (km)	Attenuation (dB/Km)
M	SC	1310/850*	<-29	-18 - -14	2	3
S1	SC	1310	<-34	-15 - -8	25	0.5
S2	SC	1310	<-34	-5 - 0	60	0.5
S3	SC	1550	<-36	-5 - 0(DFB)	120	0.25
SS13	SC	1310	<-30	-12 - -3	25	0.5
SS15	SC	1550	<-30	-5 - 0	25	0.5
SS23	SC	1310	<-32	-12 - -3	50	0.5
SS25	SC	1550	<-32	-5 - 0	50	0.5
SS34	SC	1490	<-32	-5 - -0	50	0.5
SS35	SC	1550	<-32	-5 - 0	50	0.5

* 850nm multi mode optical connector is customized