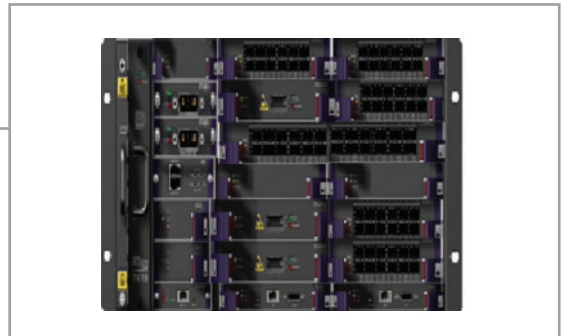


# NetRing™ TN715

## 10G/2.5G/GE MULTI-SERVICE RPR TRANSPORT PLATFORM

**COMPACT NEXT GENERATION RPR SYSTEM DELIVERS COST-EFFECTIVE SERVICES AND INTEGRATED FUNCTIONALITY**



- **CARRIER CLASS DESIGN**
- **SMALL FOOTPRINT**
- **SUPERIOR PROTECTION SCHEME**
- **QUALITY OF SERVICE**

NetRing™ TN715 is a Resilient Packet Ring (RPR) transport system designed to address the requirements of data-centric networks, dramatically reducing both operational and capital expenditures. It empowers networks with the advantages of RPR in conjunction with the flexibility of Ethernet.

Fully compliant with the IEEE 802.17 standard Release 3.3, one TN715 chassis can provide two 10G RPR rings or four 2.5G RPR rings or two GE RPR rings, or mixed. It replaces legacy star topology with superior sub-50ms level protection and industry standard QoS/CoS.

### CARRIER CLASS DESIGN

The legacy equipment currently deployed in many carrier networks is inherently inappropriate with respect to carrier class reliability. The TN715, by contrast, employs a fully distributed design which includes dual power inputs, dual clock modules, dual control modules, and dual packet-processing modules. It is unique among Ethernet equipment and it is a necessary step in the evolution of effective transport technologies.

Even the East and West line cards are designed for continuous independent operation, which means that the traffic on the RPR remains live even if one line card is removed. This affords the network an unprecedented and truly carrier-class level of protection.

### SUB 50MS PROTECTION SCHEME

The platform converges legacy Ethernet with emerging metro Ethernet technologies. As a result, the protection mode achieves true carrier class reliability. Through the RPR protection scheme, TN715 achieves a sub-50ms switch over time. This means that even highly sensitive traffic like Voice and Video can successfully be deployed with minimal delay and jitter.

### STANDARD QOS/ COS

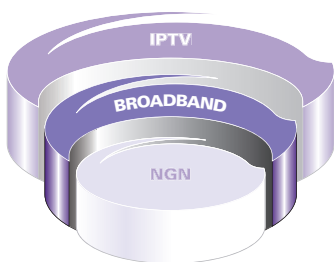
NetRing TN715 can fully support the IEEE 802.17 defined A0/A1/B/C service. This enables the platform to meet the entire spectrum of different users' requirements employing the most economic usage of available bandwidth.

### NETWORK DEPLOYMENT AND APPLICATIONS

NetRing TN715, together with UTStarcom GEPON or DSLAM products enables end-to-end Metro Ethernet solutions for IPTV, VoIP, and the next generation of multimedia services. It is an excellent solution designed to meet the rapidly evolving industry requirements for 10G/GE RPR Metro Ethernet networks.

### NEXT GENERATION DATA TRANSPORT

NetRing TN715 combines an unprecedented level of reliability and scalability with industry-leading Operation, Administration, Performance and Maintenance features.



# Technical Specifications



## HARDWARE

### SYSTEM CHASSIS

DIMENSIONS	308 x 483 x 383mm (HxWxD)
WEIGHT	16Kg fully loaded
OPERATING TEMPERATURE	0° TO 50°C (32 TO 122 °F)
OPERATING HUMIDITY	5 TO 95% non-condensing
POWER SUPPLY	-48V DC, dual inputs
POWER CONSUMPTION	less than 650W fully configured
COMPLIANCE	FCC Part 15 Class B, UL1950, VCCI

## INTERFACE

### NETWORK

STM-64/OC-192	1 port per module (west and east separately), max 4 ports per shelf to form 2 rings
STM-16/OC-48	2 ports (west and east) per module, max. 8 ports per shelf to form 4 rings
10 GE	1 port per module, max. 4 ports per shelf to form 2 rings
GE	2 ports per module, max. 4 ports per shelf to form 2 rings. East and west direction separated configured

### TRIBUTARY

100Mbps	12 ports per module, max. 48 ports per shelf
1000Mbps	12/24/32 ports per module, max. 120 ports per shelf

## DATA SERVICE

CLASS OF SERVICE	A0/A1/B(EIR & CIR)/C, fully compliant with IEEE 802.17-2004
L2 SERVICE	IEEE 802.1D/p/Q/s, 802.3x/ad, 802.1w, QinQ, IGMP snooping, IGMP proxy

ETHERNET MAC ADDRESS	32K
RPR MAC ADDRESS	128K
VLAN NUMBER	4096
RATE LIMITING	Minimum 64k step, range from 1Mbps to 1Gbps
PER VLAN MAC LEARNING	Support
MAC LEARNING RATE	Line rate
STATIC MAC ADDRESS	1K
JUMBO FRAME SIZE	Max. 9216 bytes for GE,
IGMP	IGMP snooping, IGMP proxy.
MULTICAST SECURITY	Supported
MTU BUFFER	Max. 6*9216 bytes at class A traffic
QOS QUEUE	8 hardware based queues

## PROTECTION SCHEMES

RPR ring protection, wrapping/steering, switching time<50ms  
Hardware redundancy: 1+1 power input, 1+1 control module, 1+1 clock module, 1+1 PPC module, Independent line module (east and west separated)

## TIMING/SYNCHRONIZATION

External Clock input and output, 2Mb/s, 2MHz

## NETWORK MANAGEMENT

CLI, SNMP V2



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### About UTStarcom, Inc.

UTStarcom is a global leader in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless, and handset solutions to operators in both emerging and established telecommunications markets around the world. UTStarcom enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks. Founded in 1991 and headquartered in Alameda, California, the company has research and design operations in the United States, China, Korea and India. UTStarcom is a FORTUNE 1000 company. For more information about UTStarcom, visit the company's Web site at [www.utstar.com](http://www.utstar.com)

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BB-DS-1590-TN715-0408