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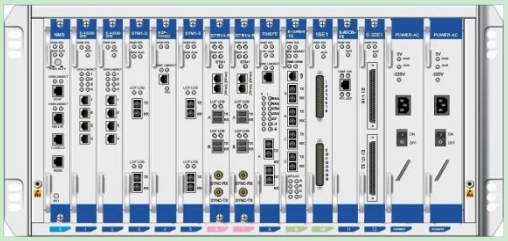
Raisecom Technology Co., Ltd

Datasheet

iTN2100 Multi Services PTN Platform

iTN2100 is a real new generation Packet Transport Network platform with dual core architecture for both Ethernet and TDM traffic delivery. It provides up to 4x10G or 8xGE and 4xSTM-16/4/1 on the line side, provides both of EoTDM and TDM pseudo wire function, and various tributary interfaces at the client side. Therefore, iTN2100 is suitable for deployment in public/private and utility networks as a unified multiservice access solution.

Extended capacities based EoTDM/PWE3 function modules ensure flexible handling of both Ethernet traffic over TDM up to 2016 VCGs, and TDM traffic over Ethernet/ MPLS-TP scenarios up to 2268 bundles based on 64kps.The consistent requirements for security, reliability and resiliency are met by dual types of 10G/GE and STM-16/4/1 uplinks, also the ITU-T G.8032/8031. Full hardware redundancy guarantees maximum system uptime. Network service function modules can carry either fiber or copper based diversified business connections as well as mobile backhaul applications. iTN2100 is a cost-effective solution, contributing to smooth technology evolution from legacy to next generation access/transport. In addition, all implemented services can be shifted to MPLS-TP core networks without any interference. Moreover, since there is no need to change the system, carriers and operators can save CAPEX and efforts on device implementations further. As 3G/LTE networks quickly enter into view, iTN2100 also supports SyncE and PTP (IEEE1588v2) for timing signal generation, distribution and termination. iTN2100 integrates a complete suite of traditional transport and access devices as sub-cards into a single unified platform, which eliminates countless failure points for cable connectivity.



iTN2100 Multi Services Access Platform

iTN2100-NMS Management card

Highlights

Dual cores architecture	Adopt IP and TDM dual cores design, support 10G, GE and STM16*, STM4, STM1 uplink.
Various services	Provide STM1、FiberMUX、DS3、E3、E1、FE、FX、V.35、V.24、G.SHDSL.bis services access.
Synchronization over Carrier Ethernet	Compliant with ITU-T G.8262 (SyncE) for frequency synchronization; Compliant with IEEE 1588-2008 (PTP) for phase and frequency synchronization
Static MPLS	Support static MPLS as a Provider Edge (PE) device
Easy Management	Management via Telnet, CLI, SNMP

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Typical Application

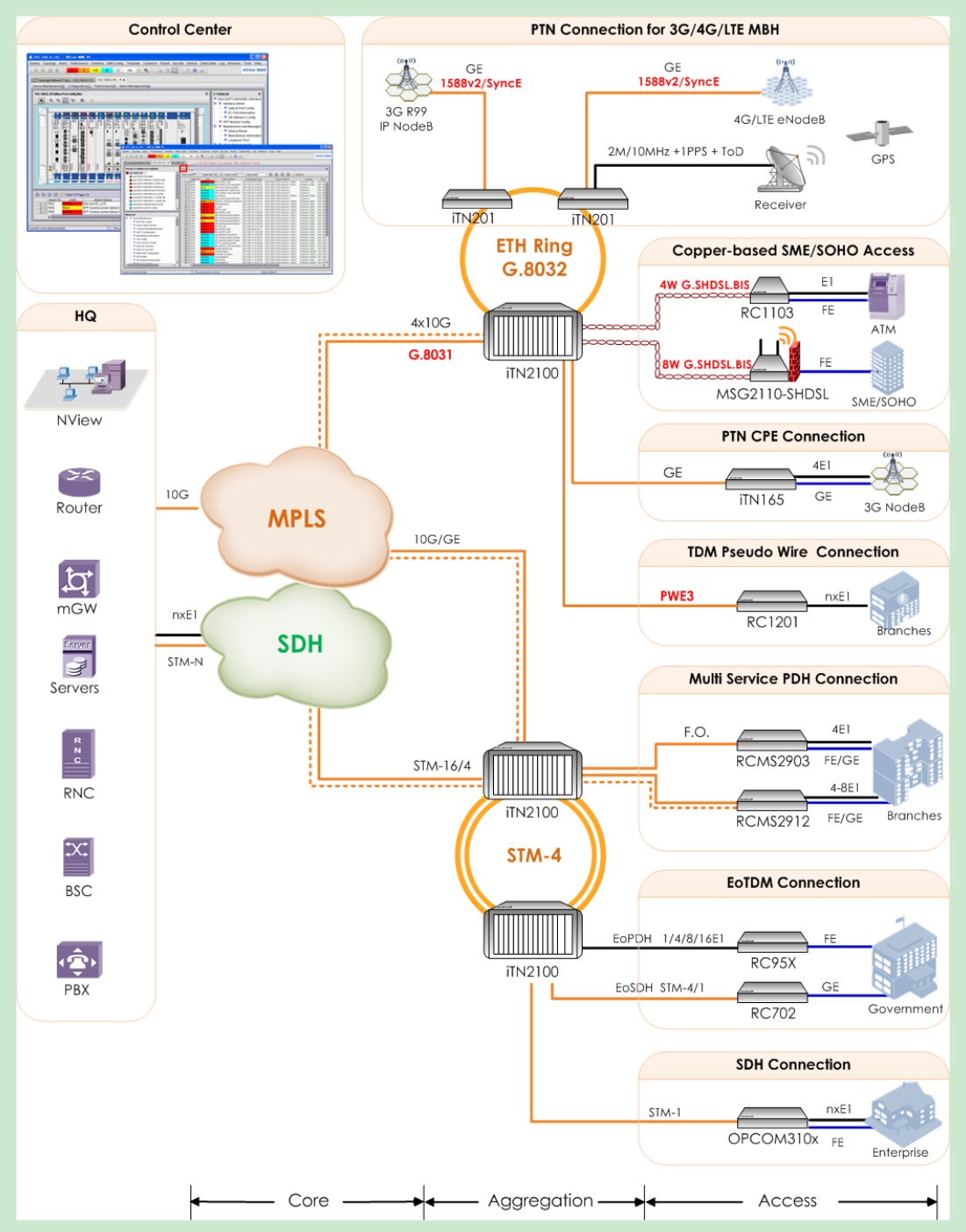

Figure.1 Dual Networks Dual Cores and Various Services Aggregation

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Features

Slot distribution	Totally 15 slots, 1 for NMS module, 2 for power module, 2 for 10G/GE uplink module and 2 for SDH uplink module, 8 or 10 for tributary module
Capacity	Totally 4x10G or 8xGE and 4 STM16*/4/1 SDH uplink ports Totally 128xGE /80xFX /40xSTM1 /30xDS3 or E3 electrical or optical /320xE1 electrical /40xFiberMux /80 Ethernet interfaces at tributary links 8 VC4 at each aggregation slot 1 VC4 and 2 GE at each tributary slot, while 4 VC4 at the 2nd &4th slots
IP features	Support Link Aggregation function 4K 802.1q VLAN and Q-in-Q (double tag) Transparent forwarding of BPDU, LACP and IEEE802.1x frames QoS support SP,WRR,SP+WR Support OAM 802.3ah，802.3ag* Support broadcast storm control Support GE Ethernet ring Access control lists (ACLs)
Cross connection	Four levels cross connection granularity: 64K、VC12、VC3、VC4 20x20 VC4 (STM1 card) or 32x32 VC4 (STM4 card) cross connection capacity 48x48 E1 cross connection capacity at 64kbps function via DXC card VC12 cross connection between all tributary units and aggregation unit and the cross connection direction support bidirectional、unidirectional broadcast and loopback
Protection	Redundant protection of switch & SDH aggregation cards Redundant protection of EoTDM cards Redundant protection of PWE3 cards Redundant protection of multiservice FiberMux cards Redundant AC and DC power supplies G.8131 MPLS-TP Liner and wrapping & steering MPLS-TP ring protection ITU-T G.8032/G.8031 Ethernet ring/line protection 1+1 MSP and 1+1 LPP and SNCP protection at aggregation slots 1+1 MSP protection at 2nd and 4th tributary slots The protection switching time is less than 50 ms Support auto\force\manual switching and lock mode Support revertive and nonrevertive protection switch mode The protection switch revertive time is configurable
Ethernet Clock	Support Synchronous Ethernet (SYNC-E) Support IEEE 1588-2008 BC and TC mode* Support 2Mbit/2MHz external clock on switch card

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SDH Clock	STM4/1 optical port line clock
	2Mbit/2MHz external clock within clock sub-card
	Support SSM protocol
Management features	Telnet/CLI/SNMP(v1/v2/v3)
	In-band and out-of-band network management channel
	In-band network management channel support Ethernet ring function
	Support Ethernet bridge
	Support RIP protocol
	Support NAT and NAPT
	Support pre-configuration of service
	End to end management
	Discover the topology automatically

Specifications

SNMP and	Connector type: RJ45
NM-EXT Port	Standard: 10/100Base-Tx
	10/100Mbps Auto-negotiation
Console port	connector type: RJ45
configuration	complies with RS232 standard
	9600bps/8bit/none parity/1
Dimension	6U high chassis
	480mm×248mm×267mm (W×D×H)
Weight	< 7Kg (chassis with two power modules)
	<0.5Kg (NMS card)
Power supply	DC Power supply option
Power consumption	≤ 300W (at max load)
	≤10W (NMS card)
Working environment	Temp: -5 ~ 50 Celsius
	RH:10 ~ 90% non-condensing
Note	*under developing
	** future plan

Compliances

Standards &	ITU-T G.707
protocols	ITU-T G.781
	ITU-T G.782
	ITU-T G.783
	ITU-T G.784
	ITU-T G.803
	ITU-T G.813
	ITU-T G.825
	ITU-T G.826
	ITU-T G.831
	ITU-T G.841
	ITU-T G.842
	ITU-T G.957
	ITU-T G.958

Ordering Information

iTN2100-12-A	iTN2100-12-A chassis with 15 slots and 1xFAN, without power supply
iTN2100-NMS	SNMP NMS module in iTN2100, provide management and control function for the whole system

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