RAISECOM
Raisecom Technology Co., Ltd.

iTN8200 400G DWDM/OTN Platform

Raisecom iTN8200 is a new generation 400G DWDM/OTN intelligent transmission network platform, which adopts a standard 19 inch, 2U chassis, up to 8 service slots. The compact design improves the equipment integration and reduces the overall space occupied by the equipment.

This new 400G platform integrated with EDFA, ROADM, FOADM, OCM, OTDR, 100/200/400G transponder and muxponder, which meets the application needs of DCI (data center interconnect), Metro DWDM/OTN, cloud business and so on. It provides high-density interface access and up to 400G uplink bandwidth, meets the growing demand for bandwidth and services of the customers.
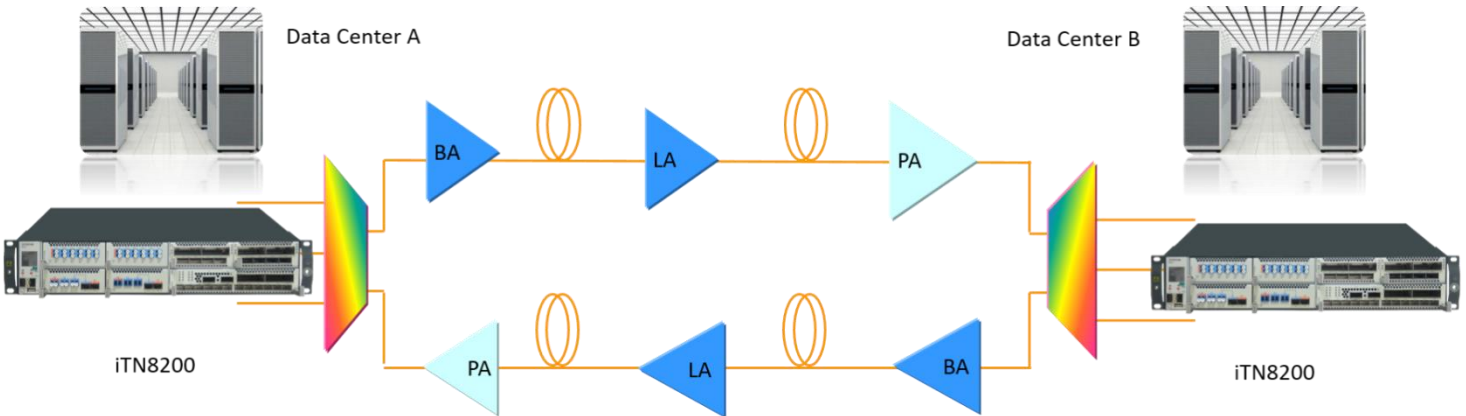
iTN8200

Highlights

Multiple services	Featured with 2 cores, WDM/OTN, among which services can be scheduled.
Flexible chassis	2U, 19-inch, suitable for 600mm deep cabinet installation
High capacity	8 small cards, or 4 large cards, up to 48/80*/96 wavelengths DWDM, 400G per slot, 3.2T per chassis
HMI	LCD, display the local IP, alarm, etc

Typical Applications

Figure.1 iTN8200 DCI application

Technical Specifications

Chassis	• iTN8200: 2U, 19", 8 small cards, or 4 large cards, 2 NMS card slots (1+1 redundancy), 2 power card slots (1+1 redundancy), 3 FANS card slot(2+1)
DWDM	• Up to 48/96/80* wavelengths DWDM
Service capacity	• 400G per slot, 3.2T per chassis
Line-side optical module	• 100G CFP2 LR4/ER4/ZR4 OTU4 • 100G CFP2 DCO • 200G CFP2 DCO • 400G CFP2 DCO
Client-side optical module	• SFP+ • QSFP+ • QSFP28 • QSFPDD*(in roadmap)
Line	• OTU4, OTUC2, OTUC4
Client	• 10GE/OTU2/STM64, 40GE, 100GE, OTU4, and 400GE*
Optical amplifier	• EDFA, Booster amplifier, Line amplifier, Pre-amplifier, RAMAN*
Power Supply	• Dual DC or dual AC • DC: -48V, -40 to -72V

Dimension W x D x H (mm)	• AC: 110V/220V, 100 to 220V
	• 482.6 × 460 × 88.1 (with brackets)
	• 442 × 460 × 88.1 (without brackets)
Environmental	• Operating temperature (ºC) (altitude: 0~1800 m): 0~40
	• Operating humidity: Long term: 5%－85% RH (non-condensing, indoor)
Overall power consumption	• ≤750W

Ordering Information

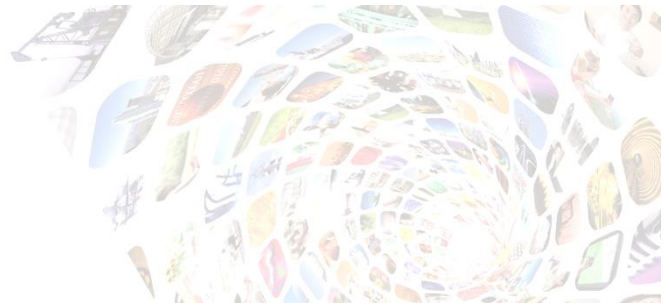| Chassis	iTN8200-II-DC	iTN8200, 2U chassis,19'', include 2 DC power cards, 3 FANS cards, 1 NMI card, and 1 NMI card.
	iTN8200-II-AC	iTN8200, 2U chassis,19'', include 2 AC power cards, 3 FANS cards, 1 NMI card, and 1 NMI card.
NMS card	iTN8200-II-NTU	iTN8200 Management card, supports devices management, and 1+1 Hardware redundancy.
NMS interface card	iTN8200-II-NMI	iTN8200-NTU interface card. including 2 NM ports, and 2 MUX ports.
LCD monitor card	iTN8200-II-NUI	iTN8200 LCD monitor card, showing IP,Alarm,etc.
400G Transponder	iTN8200-II-TQ6S	400G transponder, 4x100G mux into 1x400G
	iTN8200-II-HS6S*	400G Transponder, 400GE to OTUC4(in roadmap)
200G Transponder	iTN8200-II-TQ5D	2*200G transponder, 4x100G mux into 2x200G or 2x100G mux into 2x100G.
	iTN8200-II-TQ5DR	200G Regenerator card, support OTUC2/OTU4 regenerator
200G Muxponder	iTN8200-II-TM5S	12x10G，2x100G/40G on downlink，1x200G or 2x100G on uplink
	iTN8200-II-XT5S	20 x 10G on downlink，and 1 x 200G on uplink.
EDFA/RAMAN cards[1] (please check Note 1 for the spec)	iTN8200-II-OA25	BA+PA1
	iTN8200-II-OA35	BA+PA2
	iTN8200-II-OLA25	LA1+LA1
	iTN8200-II-OLA35A	LA2+LA2
	iTN8200-II-OLA35B	LA1+LA2
	iTN8200-11-EOA-F12*	9-15dB FGA with VOA，maximum output power is 20dBm. (in roadmap)
	iTN8200-11-EOA-F17*	14-20dB FGA with VOA, maximum output power is 20dBm. (in roadmap)
	iTN8200-11-EOA-F22*	19-25dB FGA with VOA, maximum output power is 20dBm. (in roadmap)
	iTN8200-II-EOA-V18*	8-18dB VGA, maximum output power is 21dBm. (in roadmap)
	iTN8200-II-EOA-V25*	15-25dB VGA with VOA, maximum output power is 21dBm. (in roadmap)
	iTN8200-II-EOA-V35*	22-35dB VGA with VOA, maximum output power is 21dBm. (in roadmap)
	iTN8200-II-RFA*	14dB RAMAN Amplifier card (in roadmap)
Optical Line Protection card	iTN8200-II-OP1	1 channel Optical Line Protection card
	iTN8200-II-OP2	2 channel Optical Line Protection card

RAISECOM
Raisecom Technology Co., Ltd.

ROADM card	iTN8200-II-TWS09OA25	9 channel WSS ROADM，integrated with BA,PA1,VOA.
	iTN8200-II-TWS09OA35	9 channel WSS ROADM，integrated with BA,PA2,VOA.
	iTN8200-II-TWS09*	9-dimensional WSS ROADM card(in roadmap)
FOADM card	iTN8200-II-TFF	4 channel FOADM，integrated with VOA
Optical channel monitor card	iTN8200-II-OCM	8 channel optical channel monitoring card.
OTDR card	iTN8200-II-OTDR	8 channel OTDR card
OSC card	iTN8200-II-FDU*	2 channel OSC card(in roadmap)
VOA card	iTN8200-II-VOA*	8 channel VOA card(in roadmap)
DWDM MUX/DEMUX	iTN8200-II-MUX48	48 channel DWDM MUX+DEMUX, 1U, 19-inch, 100GHz, C band
	iTN8200-II-MUX96	96 channel DWDM MUX+DEMUX, 1U, 19-inch, 50GHz, C band
	iTN8200-II-MUX80*	80 Channel DWDM MUX+DEMUX, 1U, 19-inch, 75GHz(in roadmap)

Note 1:

Spec for EDFA Module				
	Gain	Max output power for single channel	Max output power	Input optical power range
BA	8~18dB	+4dBm	21dBm	-18~+13dBm
PA1	15~25dB	+4dBm	21dBm	-28~+6dBm
PA2	22~35dB	+4dBm	21dBm	-35~+6dBm
LA1	15~25dB	+4dBm	21dBm	-28~+6dBm
LA2	22~35dB	+4dBm	21dBm	-35~+6dBm

Note 2:

Item	P/N	Max power consumption(W)
1	iTN8200-II-DC	1300 (overall)

2	iTN8200-TWS09OA35	65
3	iTN8200-II-OA35	28
4	iTN8200-XT5S	96
5	iTN8200-XT5S	120
6	iTN8200-TQ5D	75.6
7	iTN8200-TQ6S	72.3
8	UC2-200G/DCO-E	25
9	UQP-100G/LR4	4

Note 3:

Item	P/N	Weight(kg)
1	iTN8200-II-DC	14.5
2	iTN8200-II-AC	14.3
3	iTN8200-II-NTU	0.3
4	iTN8200-II-NMI	0.3
5	iTN8200-II-NUI	0.3
6	iTN8200-XT5S	1.6
7	iTN8200-TM5S	1.6
8	iTN8200-TQ6S	1.0
9	iTN8600-TQ5D	1.0
10	iTN8200-II-AC	1.0
11	iTN8200-II-DC	1.1
12	iTN8200-II-FAN	1.0
13	iTN8200-II chassis	9.3