



# iSAP2000

E1, Data, Ethernet, Voice Managed Multiplexer (2U)

The iSAP2000 is a 2U 19" 6 slots rack type E1 Time Division Multiplexer for fractional E1 network across, which is designed for nonstop operation. There are 6 slots available for hot-swappable I/O cards and two slots are provided for power supplies. Uplink supports E1 copper connection, maximum up to 96x E1 cross connect for Voice and Data. The iSAP2000 optionally accommodates up to two separate power supplies, which may derive power from AC (110/220) or DC (-36~72V) power sources. When two power supplies are installed, the modules provide complete power redundancy and are hot swappable even during the E1 cards' transmission. The iSAP2000 provides E1 copper uplink, the maximum E1 supports up to 96 E1 channels with cross connection for Voice and Data, the interface included RS232, G64K, V35, FXS, FXO, ET100, FOM01, FOM02 & E&M. CTC Union also provides and maintains our own SmartView EMS (Element Management System) which is a Java based client/server manager for monitoring, configuration, maintenance, or troubleshooting a large number of network elements over a long period of time.

## Interface Cards

- E1 card: 5100-8E1, 5100-16E1
- Power modules: 2000-AC240, 2000-DC48
- I/O cards: 5100-RS232, 5100-RS232/C, 5100-N\*64K/V35, 5100-G64K, 5100-ET100, 5100-E&M, 5100-FXS, 5100-FXO

## Features

- Supports MAX. 96xE1 with full cross-connect, Supports D50 cross-connect
- Supports 16 channel Main E1 LTU card
- Supports E1 time slot broadcast function
- Modular design for Voice I/O card, the voice I/O card has two sub-module, each sub-module supports 4-port FXO/FXS
- All modules and cards support hot-swapping
- DCE card types included N\*64K, RS232(Sync/Async), G703-64K, ET100, ET100R, E&M, FXO, FXS, FOM01, FOM02...etc.
- Supports Console, Telnet, SNMP and GUI management
- Available types of power built-in : AC+AC, AC+DC, DC+DC
- Modular design, 2U 19", 6-slot for I/O cards

## Specifications

Management	
NMS	10/100Base-TX
Console	RS232
5100-8E1, 5100-16E1	
Interface	Supports 8E1, 16E1 two types interface
E1 Cross connect	96 x E1 transparent cross connect, supports E1, time slot
CAS cross connect	Supports 16 time slot CAS follow voice time cross connect
Line Impedance	120 / 75 ohms
Frame format	CAS(PCM30)/CCS(PCM31)
Connector	RJ45
5100-RS232	
Data rate	≤38.4kbps Async or 64/128kbps Sync
Ports	6-port
Interface	RS232
5100-N*64K/V35	
Data rate	N x 64kbps(N=1~30 or 31)
Ports	4-port
Connector	V.35 Interface
5100-G64K	
Data rate	64Kbps, Co-directional, Contra-directional and Centra-directional
Ports	4-port
Connector	RJ45
5100-ET100	
Standards	IEEE 802.3, 802.3u
MDI/MDIX	Auto
Data rate	10/100Mbp
Ports	4-port
Connector	RJ45
5100-E&M	
Loop current	5~30 mA, maximum 70mA
Ports	8-port
Connector	RJ45
5100-FXS	
ITU-T Standard	G.712/G.713/G.714

Line resistance	600Ω
Off-hook current	25mA
Line distance	2km
Ports	8-port
On-hook current	10mA+/-3mA
Effective Ring	Frequency: 25Hz Voltage: 75V, peak to peak110V MAX line resistance: 1500Ω
Connector	RJ45
5100-FXO	
ITU-T Standard	G.712/G.713/G.714
Line resistance	600Ω
Line distance	2km
Ports	8-port
Caller ID	Supports DTMF, FSK Standard
Connector	RJ45
5100-FOM01/FOM02	
Uplink Fiber port	Ports: 1-port (iSAP5100-FOM01), 2-port (iSAP5100-FOM02) Data rate: 155Mbps Connector: FC Distance: 20km
Ethernet Interface	
Compliance:	IEEE 802.3/802.3u
Ports:	2- Port Connector: RJ45
Data rate:	10/100Mbps (full duplex, AUTO MDI/MDIX)
E1 Interface	
Ports:	4 channels
Connector:	RJ45 or BNC with RJ45 to BNC cable
Line code:	HDB3
Line resistance:	75Ω(unbalance) or 120Ω(balance)
Pulse amplitude:	Nominal 2.37V(75Ω) or Nominal 3.00V(120Ω)
Standard :	ITU G.703, G.704, G.732, G.823
Electrical & Mechanical	
Dimensions	440 x 300 x 88mm (D x W x H)
Environmental	Operating: 0~60°C Storage:-25~70°C Humidity: 10~90%, non-condensing
Power	AC 220V: 165~265V, 50~60Hz DC -48V:-36~-76VDC
Power Consumption	< 40W

Figure1 : Point to Multi-points 16E1 aggregation

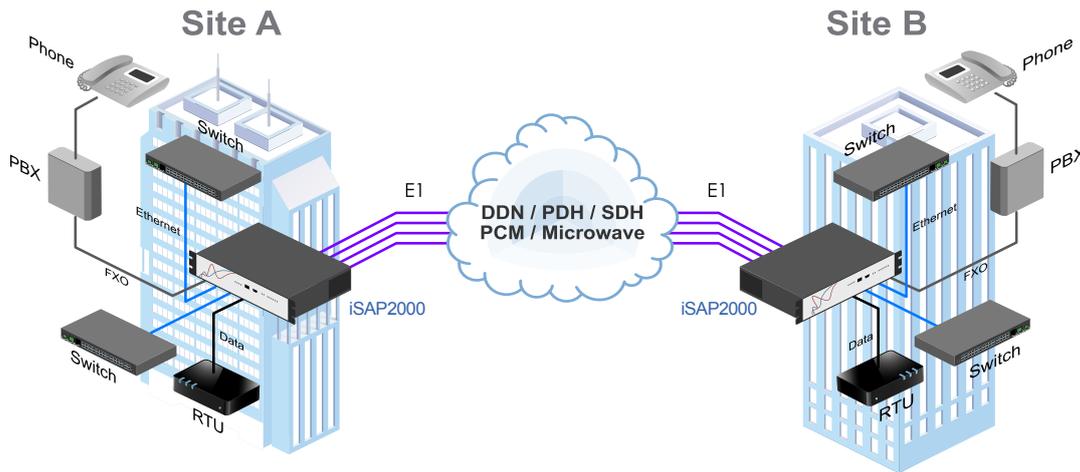
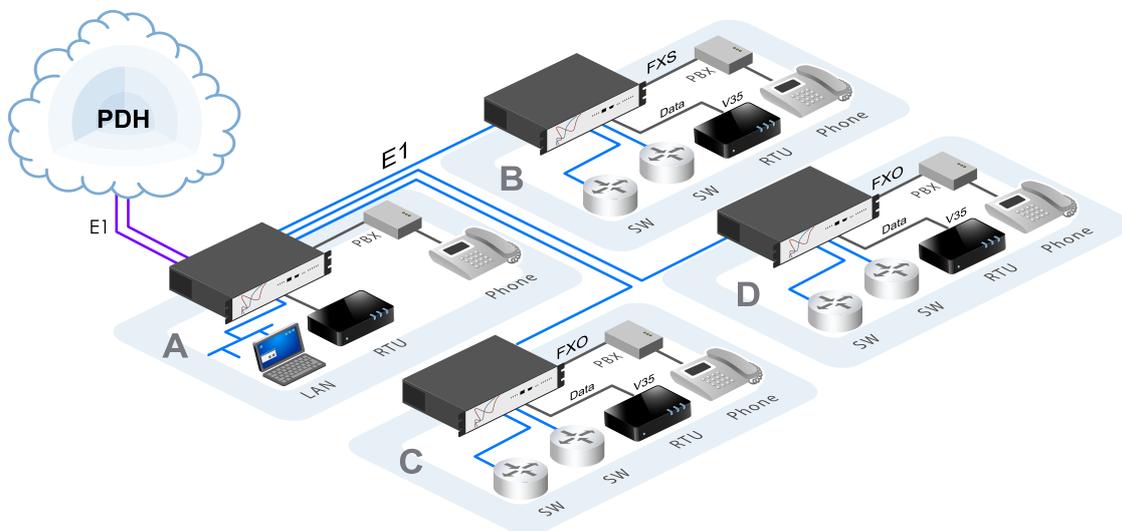


Figure2 : Point to Multi-points 63E1 aggregation over STM-1



## Ordering Information

Model Name	Type	Description
iSAP2000-CH	Chassis	2U 19" 6 slots Chassis with built-in CPU card, power modules not included
iSAP2000/AC	Power	AC power plug-in module (165 to 265 VAC)
iSAP2000/DC	Power	DC Power plug-in module ( $\pm 36$ to $\pm 76$ VDC)
iSAP-EMS	Software	EverLink2000 EMS software for iSAP5100 and iSAP2000
iSAP5100-8E1R	Main E1 card	8 channels Main-E1 LRU card: Fractional E1 RJ45
iSAP5100-16E1R	Main E1 card	16 channels Main-E1 LRU card: Fractional E1 RJ45
iSAP5100-CAB-RJ45/4BNC	Cable	2ch E1 RJ45 to 4BNC cable (1.5 meter)
iSAP5100-FOM01	FOM Card	4E1 + 2x 10/100BaseT Fiber Multiplexer Card
iSAP5100-FOM02	FOM Card	4E1 + 2x 10/100BaseT Fiber Multiplexer with 1 + 1 Protection Card
iSAP5100-FXO	Voice card	8 channels FXO interface card
iSAP5100-FXS	Voice card	8 channels FXS interface card
iSAP5100-E&M	Voice card	8 channels 2/4 wires E&M voice interface card
iSAP5100-RS232	RS-232 card	6 channels RS-232 interface card (V4.0), Low speed: 128kbps 19.2kbps Async
CAB-DB62DB25F6-232-LS	Cable	RS-232 adapter cable for low speed: DB62 Male to 6x DB25 Female, 1M
iSAP5100-ET100	FE card	4 channels 10/100Base-TX Ethernet Bridge card
iSAP5100-DATA	Data card	4 channels V.35/X.21/RS530/RS449 cards
CAB-HP68MB34F4-V35	Cable	V35 adapter cable for High speed: HP68 Male to 4x MB34 Female, 1M
CAB-HP68DB25F4-530	Cable	RS530 adapter cable for High Speed: HP68 Male to 4x DB25 Female, 1M
CAB-HP68DB15F4-X.21	Cable	X21 adapter cable for High speed: HP68 Male to 4x DB15 Female, 1M
CAB-HP68DB37F4-449	Cable	RS449 adapter cable for High Speed: HP68 Male to 4x DB37 Female, 1M
iSAP5100-G64K	64K co-directional card	4 channels G.703 64kbps co-directional card

Chassis Card Type  
**iSAP2000** -  **iSAP2000** -   
 Example: iSAP2000 - CH Example: iSAP2000 - 8E1R