1U Integrated Service Access Platform Chassis

Product Introduction

Integrated Service Access Platform (ISAP-161) is a 1RU wide band optoelectronic transmission platform with strong versatility, high installation density, powerful, flexible combination, diverse communication management modes, business service cards including amplification, monitor, switching and fan cards and pluggable power supply card (-48VDC). ISAP can be used in many application scenarios in which end users can select different options to combine the following service cards according to the fiber network design requirements:
K20-EDFA Erbium Doped Fiber Amplifiers Series Card
K20-WSS WSS Series Card
K20-OCM Optical Channel Monitoring Series Card
K20-OPS Optical Protect Switch Series Card
K20-OTDR Optical Time Domain Reflectometer Series Card
K20-MUX/DMUX MUX/DMUX Series Card
K20-TDCM Tunable Dispersion Compensator Module
K20-SOA SOA Series Card:

Environmental Parameters

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-40	------	85	℃
Storage Temperature	-40	------	85	℃
Operation Humidity	5	------	95	%
Storage Humidity	5	------	95	%

Frame Performance

No.	Parameter		Description
1	1RU Frame		Supports 3 service slots, 2 power slots, 1 management slot, and 1 fan slot. All are front panel operations and are hot swappable.
			Size is 482*240*44mm
2	Power Supply Module	PWR	Support dual power -48VDC, range -36~-72VDC
3	Fan Card Module	FAN	Intelligent temperature control system, the direction of the wind is right to left
4	System Control Module	NMU	One RJ45 network adapter and one USB B type female connector, where RJ45 is the network management interface and USB Type B female is the local interface

Slot Designs

FAN	Slot 2			Slot 1
(SLOT 40)	PWR(36)	PWR(37)	NMC(32)	Slot 0

Electrical Performance

General Electrical Characteristics	
Power Supply	Dual -48V DC
Interface Support	RS232, Ethernet
Ethernet Data Rate	10/100 Mb/s
Alarms Port/Display	RJ45 Output/LEDs
Power Consumption	≤50W

Configuration and Management

Item	Remark
Configuration	SNMPV2C, V3 interface, web interface, CLI/SSH
Management	By SNMP V2C, V3 and web interface
Managed Information	Device Temp, Power supply, Fan, slot information and card performance.
	Set alarm threshold

NMU Card Performance

Management card support SNMPV1, V2C, V3 protocol, Web(https), CLI/SSH, and it also supports online upgrade and version rollback when upgrade fails in SFTP.
All the customized setting will be managed and storage by EEPROM to make sure the hardware and software reset will not influence the customized setting of each service card.

Software Management

External Control Interface and Networking Support
SNMPV1, V2C, V3 WebGUI and CLI interfaces can be supported. SFTP client can be supported.
Internal Interfaces
Debug/console CLI access can be supported via serial port.
Security
Local user authentication (username, password) is supported. Admin, Configurator, Observer and Superuser account types can be supported. SNMPv1, SNMPv2c,V3 can be supported.
General Functionality
SW upgrade process includes downloading appropriate FW versions to the NE.
Database management can be supported, including upload/download database file from remote SFTP server and recovery from factory default database.
Power/ cold/ warm reset can be supported.
Retrieval of SW/FW variant and inventory information on each of the pluggable/replaceable modules can be provided.
NE will collect alarm/event log and make it retrievable via UIs
General HW Management
Each module's status (presence for pluggable, alarm for all) can be retrievable.
LED management can be supported.
Optical Control & Monitoring
The provisioning and monitoring of the optical components can be supported.
Major optical parameters can be retrievable.
Management Protocol and Functions
Management protocols of SNMP provided. All the following functions of subsystem can be accessed and controlled by the local or remote network management interfaces.

1.EDFA1/2 Read/Config:
Input/output Power
Gain
Components information
Working Mode (AGC, APC)

Fan Card Performance

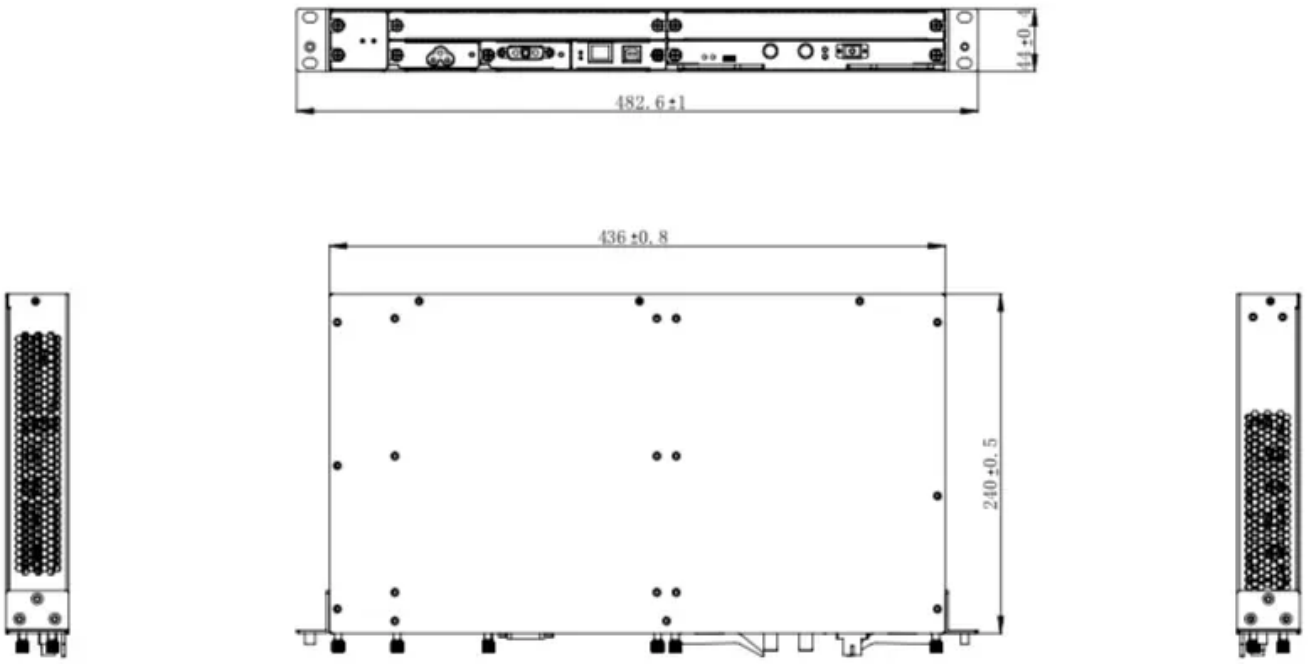
With intelligent temperature control system, the fan will be turned on when device temperature is higher than 35 degrees and will be turned off when device temperature is lower than 30 degrees. Fan speed will be auto-adjusted according to the temperature of the device, which means the fan speed increases as the temperature increases.

PWR Card Performance

Power supply module has following features:
1. -48VDC power supply and 1+1 protection with preliminary filtering.
2. Dual power supply redundancy backup.
3. In-position monitoring.
4. Power-on detection and alarm report.
5. Overvoltage protection.
6. Hot-swappable.

Mechanical Dimension

No.	Parameter	Performance	Unit	Note
1	Dimension	482 x 240x 44	mm	
2	Weight	8	kg	Base on the service card loaded



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