MODEL PXE21100

Specification

PXIe based chassis with embedded controller

The PXE21100 is a 4U, 19in, PXIe based, 21 slot, Gen 4 chassis, that supports the Tabor Proteus Family of AWGs, the TE330x family of PXIe RF amplifiers, and other modules that comply with the PXIe standard. The system includes as standard an embedded i5-13500E PC with an internal 128GB SSD drive, Display Port connection, USB interfaces for a mouse and keyboard, as well as control using USB-C and 2.5Gb Ethernet. The PC is upgradeable to an i9-13900E and 960GB SSD.

Key Features

- High slot count, 21 PXIe slots
- Fast data transfer speeds using Gen 4 PCIe
- Powerful, upgradeable built-in controller
- Scale to large systems with multiple synchronized chassis

Maximize Your PXIe Footprint

The PXE21100 has a built-in controller that does not occupy any of the card slots, making available a full 21 slots for measurement cards - increasing the measurement cability within 19in/4U. The built in controller has two performance options so that the embedded controller can eliminate the need for high performance external PC's.

Scale to Multiple Chassis

For advanced applications such as quantum computing or phased array radar, where hundreds of channels are needed, it is possible to connect multiple chassis for a fully synchronized and phase coherent system. The dedicated PXE21106, Mesh controller can synchronize up to 6 chassis and enables data transfer between modules in different chassis. For more than 6 chassis simply connect multiple PXE21106 units.

PXE21100

Specification

BACKPLANE	
Module Size	4U
Number of slots	21
Module Compatibility	PXIe
Backplane speed	PXIe revision 4.0 (Gen 4)

EMBEDDED CONTROLLER		
	Standard	**Option COMP**
CPU	i5-13500E	i9-13900E
CPU threads	20	32
CPU clock frequency	2.4GHz, up to 4.6GHz	1.8GHz, up to 5.2GHz
Backplane speed	PCI express revision 4 (Gen 4)	PCI express revision 4 (Gen 4)
Memory		
Cache	24MB	36MB
RAM Type	Four DDR5 3600 SODIMM sockets	
RAM Capacity	8GB (Standard)	32GB (Standard)
Storage	128GB SSD	960GB SSD
Interface		
Ethernet	2.5GbE, Rear panel RJ45 connector	
USB	3 x USB 2.0 (type A), 1 x USB3.2Gen1 (type A)	
Display		
GPU	Intel® UHD Graphics 770	
Type	Display Port	

CLOCKS AND TRIGGER CHARACTERISTICS[1]

External Reference In	
Connector	Rear Panel, SMA
Frequency input	100MHz
CLK IN	
Connector	Rear Panel, SMA
Frequency input	62.5MHz-150MHz
Output signal	From CLK OUT of other PXE21100
CLK OUT	
Connector	Rear Panel, SMA
Frequency output	62.5MHz-150MHz
Output signal	From CLK OUT of other PXE21100
Trigger In	
Connector	Rear Panel, SMA

CHASSIS SYNCHRONIZATION AND CONTROL

SYNC IN/SYNC OUT	
Connector	Rear panel, 9-pin micro-DSUB
MESH (PXE21106)	
Connector	Rear panel, 25-pin micro-DSUB

GENERAL CHARACTERISTICS

Size (W x H x D)	
Without feet	438.8mm x 176.0mm x 449.5mm
With feet	438.8mm x 191.7mm x 449.5mm
AC input	
Input voltage range	100 to 240 VAC
Operating voltage range	90 to 264 VAC
Input frequency	50/60 Hz
Over current protection	Internal fuse in line
Chassis cooling	
Slot airflow direction	Bottom module to top of module
Chassis cooling intake	Bottom rear of chassis
Chassis cooling exhaust	Rear of chassis
Chassis cooling fans	Fans on rear panel with HIGH/ AUTO speed selector
Power supply cooling system	Forced air circulation through two integrated fans
Power supply cooling intake	Right side of chassis
Power supply cooling exhaust	Left side of chassis
Power dissipation per slot	50W max

EMBEDDED CONTROLLER

Operating and storage conditions	**Standard**	**Option COMP**
Temperature	0 °C to 55 °C	-40 °C to 70 °C

1 (For Tabor Proteus cards only)