



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai 400076

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Specifications for PXIe chassis and PXIe modules and GPIB cables

1. PXIe Chassis

1. Must have slots for at least 2 PXIe and at least 2 PXI hybrid modules.
2. Must have an integrated MXIe controller and cable enabling for desktop control of the chassis
3. System Bandwidth must be at least 250 MB/s
4. Chassis should be compatible to run on a 100-240V AC power supply
5. DC output power must be such that each slot gets at least 25W power
6. Slots must be air cooled and each slot must get at least 30W of cooling power

2. Chassis power cord

Chassis must come with a 250V, 10A power cord

3. Chassis rack mount

Chassis must be supplied with appropriate 19-inch rack mount kit

4. Chassis accessories

All accessories for convenient handling of Chassis (side handle for easy access to in and out of rack) and rubber feet etc. must be provided

5. PXIe analog output module

1. Module must be compatible with the above PXIe chassis and should be fitted into a single chassis slot
2. Module must have at least 8 isolated channels for analog output
3. Output resolution must be at least 16 bits
4. Update rate must be at least 250KS/s
5. Must be operable in either Voltage or current mode
6. In voltage mode – the maximum voltage output per channel must be at least 15V
7. In current mode, the maximum current output must be at least 15mA

6. Terminal block for analog output module

Compatible terminal block must be provided for the PXIe analog output module to ensure that measurement setup can be connected to the module.

7. PXIe source measure unit (PXIe SMU) module (quantity - 2)

1. Module must be compatible with the above PXIe chassis and should be fitted into a single chassis slot
2. SMU must have a maximum voltage range of $\pm 60V$ and a minimum voltage range of $\pm 600mV$.
3. Resolution at maximum voltage range must be at least $100\mu V$, and at minimum voltage range must be at least $1\mu V$.
4. SMU must have a maximum current range of $\pm 3A$ and a minimum current range of $\pm 1\mu A$.
5. Resolution at maximum current range must be at least $10\mu A$, and at minimum voltage range must be at least $1pA$.

8. PXIe SMU adapters

PXIe SMU must be supplied with triaxial adapter for connecting measurement setup to the PXIe SMU (Quantity 2)

Must also be supplied with banana jack adapter for connecting measurement setup to the PXIe SMU (Quantity 2)

Necessary terminal block accessory must also be supplied (Quantity 2)

9. GPIB cable – 2m (quantity 4)

2-metre-long double shielded Plug/Receptacles GPIB cable must be provided for integrating GPIB compatible equipment and running it with labview

10. NI GPIB USB HS+

One NI GPIB USB HS+ cable to be provided

11. GPIB Cable adapters (Quantity 3)

Reverse GPIB cable adapters (Quantity 1)

Reverse slimline GPIB cable adapters (Quantity 2)