

**QUALITATIVE REQUIREMENTS AND TRIAL DIRECTIVES OF IMPLEMENTATION
OF A TURNKEY PROJECT FOR PROVIDING VOICE & DATA NETWORK OVER OFC
WITH FUTURISTIC PLAN FOR INTEGRATION OF SURVEILLANCE EQUIPMENTS**

Srl/No.	Parameter	Specification	Trial procedure suggested for Board of Officers	Result expected/ desired
1. Joystick				
1.1	Interface	RS 485 (terminal black), Ethernet (RJ45)	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The interface must be as per requirement mentioned in the QRs.
1.2	Baud rate	300 bps ~ 115,200bps	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The Baud rate must be as per requirement mentioned in the QRs.
1.3	Supports Protocols	Over 70 sorts of PTZ protocol (IDIS, PANASONIC, PELCO, SAMSUNG etc)	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The supports protocols must be as per requirement mentioned in the QRs.
1.4	Support device	IP camera, NVR	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The support device must be as per requirement mentioned in the QRs.
1.5	Display	LCD (2 LINE)	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The display must be as per requirement mentioned in the QRs.
1.6	USB	Min 1 port	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The USB must be as per requirement mentioned in the QRs.
1.7	Audio in/out (Min)	1(3.5mm)/1(3.5mm)	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The Audio in/out (Min) must be as per requirement mentioned in the QRs.
1.8	Component	Joystick main control board	The FAT report needs to be submitted & the functionality needs to be verified by the BOO	The component must be as per requirement mentioned in the QRs.

General:-

- i) Remote control of NVRs, DVRs, network video transmitters, network video receivers and network cameras via network connection.
- ii) Control of NVRs by using a USB mouse via network connection.
- iii) Two-way audio communication.
- iv) Convenient firm are upgrades via either the USB port or Ethernet.
- v) Firm are duplication and auto-recovery functions to enhance system.
- vi) Stability
- vii) Management of Multiple network keyboards via network connection.
- viii) Programmable by using the LCD screen.

To be checked physically by BOO.

All additional items must be as per requirement mentioned in the QRs.

2. 3C X 2.5 SQ MM IS 1554 Standard Part-I or latest cable

Handwritten signatures and initials:
 - Top left: "Aadav 06/05/22" with a signature.
 - Middle: "Dygh" with a signature.
 - Bottom center: "Sham" with a signature.
 - Bottom right: "Nanjayal" with a signature.
 - Other initials: "PL", "C", "S", "K", "M", "N".

Srl/No.	Parameter	Specification	Trial procedure suggested for Board of Officers	Result expected/ desired
2.1	Conductor Dia	2.5 square mm	To be checked physically by BOO	The Conductor Dia must be as per requirement mentioned in the QRs.
2.2	Armour	Insulated bare copper, GI Wire armouring inner and outer PVC Sheathed IS 1554 standard part-I or latest.	To be checked physically by BOO	Armour must be Insulated bare copper, GI Wire armouring inner and outer PVC Sheathed IS 1554 standard part-I or latest
2.3	No. of Cores	3	To be checked physically by BOO	Cores must be 3.
2.4	Voltage Level	1.1KV	Firm has to submit the OEM certificate.	Voltage level must be as per requirement mentioned in the QRs.

3. SFP Module 10G for OLT and Core Switch

3.1	SFP MSA package with duplex LC connector.	To be physically checked by the BOO.	The SFP MSA package with duplex LC connector must be as per the requirement mentioned in the QRs.
3.2	Very low EMI and excellent ESD protection.	To be physically checked by the BOO.	The specifications must be as per the requirement mentioned in the QRs.
3.3	Digital Diagnostic Monitor Interface.	To be physically checked by the BOO.	System must have Digital Diagnostic Monitor Interface.
3.4	Hot pluggable.	To be physically checked by the BOO.	System must be Hot pluggable.
3.5	10Gb/s serial optical interface.	To be physically checked by the BOO.	System must have 10GB/s serial optical interface.
3.6	Up to 10km distance.	To be physically checked by the BOO.	System must be upto 10km distance.
3.7	Compliant with SFP+ MSA.	To be physically checked by the BOO.	System must be compliant with SFP+MSA.
3.8	High transmission margin.	To be physically checked by the BOO.	System must have High transmission margin.
3.9	+3.3V single power supply.	To be physically checked by the BOO.	System must have +3.3V single power supply
3.10	Below <1.5W power consumption	To be physically checked by the BOO.	System must have Below <1.5W power consumption.
3.11	SFP mechanical	To be physically checked by the BOO.	System must have SFP mechanical interface.