

TECHNICAL SPECIFICATION FOR HIGH SPEED MODULATOR AND MODULATOR DRIVER

High speed modulator and modulator driver		
A.	Intensity modulator (up to 40 GHz) specifications	
1	Operating wavelength range	1525 nm - 1605 nm
2	Insertion loss	< 6 dB
3	Return loss	40 dB
4	Optical extinction	20 dB
5	Optical input power	Up to 100 mW
6	RF operating frequency	Up to 40 GHz
7	Max RF input power	> 20 dBm
8	V_{π}	< 6 V
9	Fibre connectors	Polarization maintaining PANDA fibers at the input and SMF-28 fibers at the output
10	RF connectors	Female 1.85 mm
11	Reflection at RF port	< -10 dB
12	Quantity	1
B.	Intensity modulator (up to 10 GHz) specifications	
1	Operating wavelength range	1525 nm - 1605 nm

2	Insertion loss	< 5 dB
3	Return loss	40 dB
4	Optical extinction	20 dB
5	Optical input power	Up to 100 mW
6	RF operating frequency	Up to 10 GHz
7	Max RF input power	> 20 dBm
8	V _{TT}	< 7 V

9	Fibre connectors	Polarization maintaining PANDA fibers at the input and SMF-28 fibers at the output
10	RF connectors	SMP
11	Reflection at RF port	< -10 dB
12	Quantity	1
C.	Phase modulator (up to 10 GHz) specifications	
1	Operating wavelength range	1525 nm - 1605 nm
2	Insertion loss	< 5 dB
3	Return loss	40 dB
4	Optical input power	Up to 100 mW
5	RF operating frequency	Up to 10 GHz

6	RF input power	> 20 dBm
7	V _{TT}	< 8 V
8	Fibre connectors	Polarization maintaining PANDA fibers at the input and SMF-28 fibers at the output
9	RF connectors	SMP
10	Reflection at RF port	< -10 dB
11	Quantity	2
D.	Modulator driver with internal RF amplifier, power monitor and variable optical attenuator specifications	
1	Operating wavelength range	1525 nm - 1605 nm
2	Optical input power	Up to 100 mW
Internal Amplifier		
3	Bandwidth	at least 20 GHz
4	Max RF input	Around 100 mV

5	Max DC input	±10V
6	RF output swing	4 - 7 V
7	Electrical return loss	<-10 dB
8	Gain	Up to 30 dB

Internal Power Monitor		
9	Accuracy	±0.5 dBm at 1550 nm
10	Resolution	0.01 dBm
11	Insertion loss	< 0.2 dB
Internal Variable Optical Attenuator		
12	Insertion loss	< 0.5 dB
13	Response time	1 sec
14	Quantity	1
<u>E.</u>	Suppliers should provide technical compliance including explanations without fail against each point given in the technical specifications for consideration of the offer.	
<u>F.</u>	Power requirement: As per Indian electrical standards (230V AC, 50 Hz)	
<u>G.</u>	Warranty: Comprehensive warranty for 1 year from the date of installation. Vendor is also expected to provide the cost for extended warranty until 5 years as an optional item.	
<u>H.</u>	Parent company (OEM) should be an established company and the vendor/distributor should provide post-sales support of the same equipment in India.	

I.

Standard configurations will be required. **NO CUSTOM BUILT SYSTEMS WILL BE ENTERTAINED.**

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified)

