



1. Scope of Supply

Scope of supply includes the following deliverables:

Table 1 : Scope of Supply

S.No	Name of the item	Quantity	Specifications
1.	Detector (Zero Bias)	04	Refer Table 2 for technical specification
2.	Horn Antenna (Conical)	02	
3.	3 dB coupler	02	
4.	Variable attenuator (manually operated)	01	
5.	Full band isolator	01	

Notes:

1. Bidder/Supplier should provide detailed technical datasheet of each quoted item along with the quotation.
2. Quotation without detailed datasheet(s), part number/model number and duly filled supplier specification sheet as prescribed format may not be considered.
3. Simply specifying the compliance against the specifications by indicating “yes”, “complied”, “agreed”, “OK” etc. without providing the evidence such as product datasheets, manuals etc., may lead to bid rejection
4. Supplier should provide Warranty of minimum one year for each quoted item.
5. Packing & shipment: The material should be appropriately packed with one set of documentation & dispatched to:
ECRH Laboratory,
ITER-India Laboratory Building
Institute for Plasma Research (IPR),
Bhat, Gandhinagar, Gujarat 382428
INDIA



2. Technical Specifications

Table 2: Technical Specifications

1) Detector (Zero Bias)		
ITER-India Specification		Bidder specification/compliance
Make & Model No.	Specify quoted make & model no. Pls. submit corresponding datasheets in support of quoted specs.	
Frequency range (GHz)	110-170	
Minimum Sensitivity (mV/mW), over frequency band at 1M Ω load	≥ 150	
Maximum CW input power rating (dBm)	≥ 5	
Video bandwidth (MHz)	≥ 10	
RF connector at input	WR-6 (EIA standard) or it's compatible, round flange, UG-387/U-M	
DC connector at output	SMA (F)	
Finish	Gold	
Note: Following calibrated reports/test reports to be supplied with the unit. 1.1. Full frequency band Vs Sensitivity. 1.2 Input power (dBm) Vs Output voltage (mV) at different load values		

2) Horn Antenna (Conical)		
ITER-India Specification		Bidder specification/compliance
Make & Model No.	Specify quoted make & model no. Pls. submit corresponding datasheets in support of quoted specs.	
Frequency range (GHz)	110-170	



Gain (dB)	≥ 21 (typical value within band)	
	Also, please specify value at 170GHz	
VSWR	≤ 1.25	
RF connector at input/output	WR-06 (EIA standard) or it's compatible, round flange, UG-387/U-M	
Finish	Gold	
Note: Calibrated report/test report/inspection report must be provided by supplier along with the unit.		

3) 3 dB Directional Coupler		
ITER-India Specification		Bidder specification/compliance
Make & Model No.	Specify quoted make & model no. Pls. submit corresponding datasheets in support of quoted specs.	
Frequency Range (GHz)	110-170	
Coupling (dB)	3 typical	
Coupling flatness, dB, max.	± 1.5	
Directivity, dB	≥ 25	
Main line VSWR	1.15 max.	
Secondary line VSWR	1.2 max.	
Insertion loss, dB	≤ 2.5	
RF connector at input/output	WR-06 (EIA standard) or it's compatible, round flange, UG-387/U-M	
Finish	Gold	
Note: Calibrated report/test report/inspection report must be provided by supplier along with the unit.		



4) Variable attenuator (Manually Operating)		
ITER-India Specification		Bidder specification/compliance
Make & Model No.	Specify quoted make & model no. Pls. submit corresponding datasheets in support of quoted specs.	
Frequency range (GHz)	110-170	
Attenuation range (dB)	0 - 25	
Insertion loss (dB)	≤ 3	
Input power rating (dBm)	≥ 14	
VSWR	≤ 1.5	
RF connector at input/output	WR-06 (EIA standard) or it's compatible, round flange, UG-387/U-M	
Finish	Gold	
Note Calibrated report/test report/inspection report must be provided by supplier along with the unit.		

5) Full band Isolator		
ITER-India Specification		Bidder specification/compliance
Make & Model No.	Specify quoted make & model no. Pls. submit corresponding datasheets in support of quoted specs.	
Frequency range (GHz)	110-170	
Isolation full band (dB), min.	≥ 20	
Insertion loss (dB)	≤ 3.5	
Input power rating (dBm)	≥ 14	
VSWR	≤ 1.5	



ITER-India
(Institute For Plasma Research)

Enquiry No.: I-IEF20002

Date : 23.04.2020

RF connector at input/output	WR-06 (EIA standard) or it's compatible, round flange, UG-387/U-M	
Finish	Gold	
Note: Calibrated report/test report/inspection report must be provided by supplier along with the unit.		

Bidder's Name (Name of Company/Firm) : _____

Name of Contact Person : _____

Email id and phone no. of Contact Person : _____

Bidder's Sign & Seal: _____

Date _____