



Request for Quotation (RFQ) for the supply of a Real Time Spectrum Analyser to the CSIR

RFQ 9180/ 30/08/2019

Date of issue	16 August 2019
Closing Date and Time	30 August 2019 at 16h30
Contact details	For submission of quotations or any other enquiries: tender@csir.co.za

1 INVITATION FOR QUOTATION

Quotations are hereby invited for the supply of a real-time spectrum analyser according to the specifications contained in this document.

- All specifications to be minimum specifications except where stated otherwise.
- All specifications to be achieved within 10 minutes from start-up.
- Second hand equipment will be considered.
- A five year maintenance plan must be offered.

Please complete the compliance table paragraph 2 with detail information on how the specification is complied with.

2 QUOTATION REQUIREMENTS

	Description	Specification	Compliance
	Frequency coverage	10 kHz to 26 GHz	
	Internal pre-amp	1 MHz to 26 GHz	
	Storage	Removable SSD 250 GB minimum	
	Acquisition memory	>2 GB	
	Phase noise and jitter measurement capability	10 Hz to 1 GHz frequency offset range, log scale frequency scale traces - 2: \pm Peak trace, average trace, trace smoothing, and averaging	
	Phase noise	Better than :	

		-110dBc/Hz at 1 GHz and 10 kHz offset	
	Spurious free dynamic range, better than:	80dB	
	Minimum detectable signal	-155 dBm/Hz at 26.5 GHz -165 dBm/Hz at 2 GHz	
	Settling time measurement capability phase and Frequency	Measured frequency, Settling time from last settled frequency, Settling time from last settled phase, Settling time from trigger. Automatic or manual reference frequency selection. User adjustable measurement bandwidth, averaging, and smoothing. Pass/Fail mask testing with 3 user-settable zones	
	Advanced signal analyses	Pulse measurements 0.1375 us	
	Real-time acquisition bandwidth	165 MHz	
1	Advanced Triggers and swept DPX	Yes 10.1 Time Qualified Trigger: Time qualification may be applied to: Level, Frequency mask, DPX Density, Runt, Frequency edge, Ext. 1, Ext. 2 a. Time qualification range T1: 0 to 10 seconds b. T2: 0 to 10 seconds c. Time qualification definitions Shorter than T1 d. Longer than T1 e. Longer than T1 AND shorter than T2 f. Shorter than T1 OR longer than T2 10.2 Holdoff Trigger 10s	
	Digital I & Q output	Real time	
	Spectrums per second	> 2 500 000	
	Frequency reference	10 MHz	
	100% Probability of intercept for pulse width of more than	500 ns	
	High performance real time	3 000 000 spectrums per second	
	5 year maintenance	Full support included	
	Delivery time	Less than 8 weeks	

		<ul style="list-style-type: none"> • Calibration facilities to SANAS standards to be serviced by supplier (calibration cost needs not be included in price) • Calibration interval not less than 1 year. 	
		All RF ports to be SMA connectors (or adapters to be supplied with instrument)	

3 EVALUATION CRITERIA

- 3.1 Selection of suppliers will be based on the 80/20 preference point system.
- 3.2 Send a valid B-BBEE certificate with quotation. No B-BBEE status will equal zero points.
- 3.3 Indicate CSD number (National Treasury Central Supplier Database) on quotation. If not registered yet on CSD, use www.csd.gov.za to register.
- 3.4 No order will be issued or no contract will be signed without a valid CSD number.

4 PRICING QUOTATION

- 4.1 Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.
- 4.2 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, etc.
- 4.3 Payment will be according to the CSIR Payment Terms and Conditions.

5 OTHER TERMS AND CONDITIONS

- 5.1 The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any CSIR employee or its representatives. Such an act shall constitute a material breach of the Agreement and the CSIR shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights.
- 5.2 A validity period of 90 days will apply to all quotations except where indicated differently on the quote.

6 No goods and/or services should be delivered to the CSIR without an official CSIR Purchase order. CSIR purchase order number must be quoted on the invoice. Invoices without CSIR purchase order numbers will be returned to supplier.

7 Note: This is not a Purchase Order.