Consultative Meeting Notification   55/2017

Buyer-seller consultation on "Electronics and communication measuring and testing equipment "dated 08.12.2017

Presented by :

Date :

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Meeting held on 8th December 2017 for "Electronics and communication measuring and testing equipment":(1) Logic Analyzer ,(2) Power Quality Analyzer & "Electric Measuring And Testing Equipment and accessories": (1)Signal Analyzer,(2) Spectrum Analyzer Vector Network Analyzers items with sellers and buyers.

Following participants participated from the Sellers' side:
(i)   M/s Agnmatel India Pvt. Ltd.
(ii)   M/s Keysight Technologies India Private Limited
(iii)   M/s RDK TechSolutions India Pvt. Ltd.
(iv)   M/s Anritsu India Pvt. Ltd.
(v)   M/s Atandra Energy Pvt. Ltd.
(vi)   M/s Tektronix India Pvt. Ltd.
(vii)   M/s Convergent Technologies Pvt. Ltd.
(viii) M/s Rohde and Schwarz India Pvt. Ltd.
(ix)   M/s Balaji Enterprises

➤ **Nobody participated from the Buyers' side**

➤ **In the consultative meeting the following points are suggested by participants in the existing Technical Particulars of <u>Logic Analyzer</u> :**

- LOV with Values 34/68/102/136 may be created for the parameter Number of Channels.
- LOV with Values 350/300/333 may be created for the parameter Maximum Clock Rate.
- Maximum State Data Rate may be removed since it is twice of the Clock rate (which is already there as a separate parameter).
- In the parameter of Timing ,LOV of Not-Available may be removed as it is a must for a Logic analyzer.
- Validation of <2.5 pF may be created for the parameter Capacitive Loading.
- (50pS-7.5nS) range may be provided in Setup/Hold Time (Adjustable).
- LOV with Values 2.5/1.6 (GHz) may be created for Deep Memory Timing for Full Channels.
- Deep Memory Timing for Half Channels may be removed since it is twice of the Deep Memory Timing for Full Channels (which is already there as a separate parameter).
- LOV with Values 2.5/1.6 (GHz) may be created for Memory Depth with Timestamp for Full channels.
- Memory Depth with Timestamp for Half channels may be removed since it is twice of the Memory Depth with Timestamp for Full channels (which is already there as a separate parameter).
- LOV of 16 may be created for the parameter Trigger States.
- In the parameter of Simultaneous state and timing analysis , LOV of Not-Available may be removed as it is a must for a Logic analyzer.
- In the parameter of Setup/Hold Violation, LOV of Not-Available may be removed as it is a must for a Logic analyzer.
- LOV with Values TFT/LCD/LCD TOUCH may be created for the parameter Display Type.
- Validation of >12 INCH may be created for the parameter Display Size.
- Probe supplied should commensurate with no. of channels so values may be created accordingly.

- LOV of 5-40 degree Celsius may be created for the parameter Operating Temperature.
- LOV of 70-90% RH may be created for the parameter Operating Humidity.
- LOV of 230±10% may be created for the parameter Operating Voltage.
- Power Consumption parameter may be removed.
- Test Report parameter may be created with an option of Yes/No and another parameter with description that the report can be shown to the buyer on Demand may be created.

> ## Golden parameters for Logic Analyzer proposed by participants are as under:
- Channels
- Maximum Clock Rate
- Deep Memory Timing for Full Channels
- Memory Depth with Timestamp for Full channels
- Interoperability with Oscilloscope

> ## In the consultative meeting the following points are suggested by participants in the existing Technical Particulars of <u>Power Quality Analyzer</u>:

- LOV with Values .04/.1/.2/.5/1 may be created for the parameter Measurable voltage accuracy.
- LOV with Values .04/.1/.2/.5/1 may be created for the parameter Measurable current accuracy
- Screen Memory parameter may be removed as separate parameter for memory is already there.
- Dimensions parameter may be removed .
- LOV with Values TFT/LCD/LCD TOUCH may be created for the parameter Display Type.
- In the parameter of Facility to Measure sag(dips) and swell(surge) ,LOV of Not-Available may also be created Also another parameter can be created asking about the pattern of measurement of sag and swell with LOV of waveform/trend/value.
- Validation of < 0.1V may be created for the parameter Measurable voltage resolution.
- Validation of < 5 mA may be created for the parameter Measurable current resolution.
- LOV with Values USB/LAN may be created for the parameter Interface.
- (40-70)Hz range may be provided in Frequency range that can be measured.
- In the parameter of Facility to Measure Inter harmonics, LOV of Not-Available may also be created.
- In the parameter of Facility to Measure Ripple Factor, LOV of Not-Available may also be created.
- In the parameter of Facility to Measure inrush current, LOV of Not-Available may also be created.
- In the parameter of Facility to Measure flicker, LOV of Not-Available may also be created.
- In the parameter of Type of Battery used, LOV of Not-Available may also be created.
- LOV with Values 1/2/3/4GB/NA may be created for the parameter Internal Memory.
- LOV with Values NA/4/8/2/6 may be created for the parameter Battery backup.
- Validation of <15Kg may be created for the parameter Weight of the analyser.
- LOV of 5-40 degree Celsius may be created for the parameter Operating Temperature.
- LOV of 70-90% RH may be created for the parameter Operating Humidity.
- LOV of 230±10% may be created for the parameter Power supply.
- Compliance to IEC 61000-4-30 may be asked according to the corresponding CLASS A/B/S.

- LOV with different ratings like CAT-II(1500,2500,4000,6000)V,CAT-III (2500,4000,6000,8000)V , CAT-IV(4000,6000,8000,12000)V may be created for Category of safety rating.
- Test Report parameter may be created with an option of Yes/No and another parameter with description that the report can be shown to the buyer on Demand may be created.

> **Golden parameters for Power Quality Analyzer Proposed by participants are as under:**
- Type of Power analyzer
- Display Mode
- Number of Current Channels
- Number of Voltage Channels
- Measurable voltage accuracy
- Facility to Measure sag(dips) and swell(surge)
- Facility to Measure Inter harmonics

> **In the consultative meeting the following points are suggested by participants in the existing Technical Particulars of <u>Spectrum analyzers vector network analyzers:</u>**

- LOV with Values 7/13/18/26.5/40 GHz Two port Vector Network Analyzer may also be created in addition to 3 and 6 GHz as corresponding values are already created for Spectrum Analyzers in the parameter Description of the item. Also spectrum analyzer,6 GHz may also be created.
- One more LOV of 20mS TO 1S may be created for the parameter Sweep time.
- Test Report parameter may be created with an option of Yes/No and another parameter with description that the report can be shown to the buyer on Demand may be created.

Golden parameters for Spectrum analyzers vector network analyzers Proposed by participants are as under:
- Description of the item
- Frequency Span
- Amplitude : Max input level for protection (dBm)
- VSWR for 2port Vector Network Analyzer
- Measurement of S11 & S21 and Smith Chart measurement shall be possible

> ➤ **In the consultative meeting the following points are suggested by participants in the existing Technical Particulars of <u>Signal analyzer</u> :**

- LOV with Value (20Hz-40GHz) may also be created for the parameter Frequency Range.
- LOV with Values 10/20/80/160 MHz may be created for the parameter Capture/Demodulation Bandwidth (Max.) in addition to the existing values of 25 and 40MHz.
- Values of 1GB, 2GB may be created in addition to the 256MB value for the I/Q memory Depth.
- One more LOV of value (1×10^{-6}) may be added in the Ref. Frequency Aging.
- 40GHz value may be added in the parameter Displayed Average Noise Level (10 MHz to 3/6/13/26.5 GHz, DANL should be less than or equal to -130 dBm/Hz).
- Test Report parameter may be created with an option of Yes/No and another parameter with description that the report can be shown to the buyer on Demand may be created.

Golden parameters for Signal analyzer Proposed by participants are as under:
- Frequency Range
- Capture/Demodulation Bandwidth (Max.)
- Sample Rate

Regards

GeM-Admin