

Rate Contract
Government of India
Directorate General of Supplies & Disposals
Jeevan Tara Building, 5 Sansad Marg
New Delhi-110001
Tel Number 23360610/23360537

Rate Contract no. S_ANA/IT-4/RC-D2060000/0212/84/F0364/1524
Dated 14-MAR-11

To,

SRB INSTRUMENTS PVT. LTD.
B-28/34 Subhash Chowk, Laxmi Nagar, Delhi- 110092

Tele No. 011-22413422 / Fax: 011-22459443
Rakesh Pandita: 0-9810190551/ mail: rakesh@srb-instruments.com
Vinod Pandita: 09810445563

Sub: Rate Contract for supply of Spectrum Analyzer & Signal Analyzer
Validity: From 01-APR-11 To 31-MAR-12 .

Ref:(1) This Office Tender Enquiry No. S_ANA/IT-4/RC-D2060000/0212/84
Opened on 16-NOV-10.
(2) Your Quotation No. And Dated

Dear Sir,

You are hereby informed that your above referred tender read with subsequent letters mentioned above for the Stores specified in the Schedules annexed has been accepted. This rate contract will be governed by the terms and conditions brought in the Form no. DGS&D 1001 available from dgs&d sales counter on payment of Rs. 50/- .The Rate Contract and the schedules annexed here to shall be the sole repository of this Rate Contract/Transaction.

SCHEDULES ANNEXED

- 1.Schedule "A" Description of stores,prices,duties/taxes.
- 2.Schedule "B" special conditions of contract / Other information.
- 3.Schedule "C" Information to DDOs about parallel rate contracts.
- 4.Annexure - Technical Specification

Yours Faithfully,

()

Assistant Director(S)/Section Officer/Dy.Director

For and on behalf of the purchaser named in the Form DGS&D 1001.

SCHEDULE - A

1. Rate Contract No.: -S_ANA/IT-4/RC-D2060000/0212/84/F0364/1524
Dated 14-MAR-11 For the Supply of Spectrum Analyzer & Signal Analyzer

2. Advance Rate Contract No.: - Nil
Dated

3.(a) Name and Full Address of the Firm :-

SRB INSTRUMENTS PVT. LTD.
B-28/34 Subhash Chowk, Laxmi Nagar, Delhi- 110092

Tele No. 011-22413422 / Fax: 011-22459443
Rakesh Pandita: 0-9810190551/ mail: rakesh@srb-
instruments.com
Vinod Pandita: 09810445563

.
DELHI - 110092
Tel. No. - 011-22413422
Fax - 011-22459443
Email - rakesh@srb-instruments.com

(b) Name and Full Address of Manufacturer :-
As per Schedule B

(c) Brand: Agilent Technologies

4. Validity of Rate Contract: 01-APR-11 To 31-MAR-12

5. Description of Item, Specification, Unit, Rate

Item Model No. No. Rs.)	Store Description	Description	Unit	Rate (in
1	Agilent Technologies N9340B with option PA3,AMA, DMA, INM & ABA	Spectrum Analyzers	Description: Spectrum Analyzer 3 GHz	NOS. 782450 Rs. SEVEN LAKHS EIGHTY-TWO THOUSAN D FOUR HUNDRED FIFTY ONLY
3	Agilent Technologies N9010A	Spectrum Analyzers	Description: Spectrum Analyzer 13 GHz	NOS. 1760862 Rs. SEVENTEE

	with option 513 & EMC				N LAKHS SIXTY THOUSAN D EIGHT HUNDRED SIXTY- TWO ONLY
4	Agilent Technologies N9010A with 526 & EMC	Spectrum Analyzers	Description: Spectrum Analyzer 26.5 GHz	NOS.	1998123 Rs. NINETEEN LAKHS NINETY- EIGHT THOUSAN D ONE HUNDRED TWENTY- THREE ONLY
7	Agilent Technologies U2000A	Add-on items for Spectrum Analyzers	Description: External Power Sensor:10MHz to 18GHz ,-67dBm to +23dBm	NOS.	207246 Rs. TWO LAKHS SEVEN THOUSAN D TWO HUNDRED FORTY-SIX ONLY
8	Agilent Technologies N9340B- TG3	Add-on items for Spectrum Analyzers	Description: Tracking Generator for 3GHz Spectrum Analyzer	NOS.	110858 Rs. ONE LAKHS TEN THOUSAN D EIGHT HUNDRED FIFTY- EIGHT ONLY
10	Deleted	Add-on items for Spectrum Analyzers	Description: External Power Sensor: 50MHz to 6GHz ,-50 dBm to +20dBm	NOS.	0 Rs. ZERO ONLY

-
- 6-Terms of Delivery: Free delivery at consignee's premises including installation, Commissioning and training & Packing.
- 7-Excise Duty: N.A.
- 8-Sales Tax: CST/VAT Extra @5%
- 9-Delivery Period: 8-10 weeks from the date of receipt of confirmed order.
- 10(a)-Annual Turnover: Without Limit

accessed by all. The DGS&D website is <http://dgsnd.gov.in>

SCHEDULE - B

RC Specification:A. Sales Office: Agilent Technologies Sales (Pte) Ltd. No. 1, Yishun Avenue, 7 Singapore

B. On Line Order Placement : DDOs should sent the ink signed copy of on line order placed through DGS&D Web Site to SRB Instruments Pvt. Ltd. on above address.

Special Conditions of Contract:

1.a.Name & Full Address of Manufacturers:

i. Agilent Technologies Microwave Products (M) Sdn Bhd, Bayan Lepas Free Industrial Zone, Bayan Lepas 11900, Penang, Malaysia

ii. Agilent Singapore Address: Agilent Technologies Singapore (Sales) Ptd. Ltd. Yishun Avenue 7 Singapore- 768923

1b. CDE Discount:

(i) CDE Discount Clause: We offer the following discount against valid Custom duty exemption Certificates on Spectrum Analyzers.

a) 17.7% for Defence customers (where present rate custom duty is nil as per custom notification 39/96) against valid CDE certificate.

b) 10% for other customers like education and R&D Labs (where present rate custom duty is 9.3% as per custom notification 51/96) against valid CDE certificate.

1c. Insurance: As per DGS&D standard transit insurance clause, it will be responsibility of supplier for safe arrival of stores in full and good conditions at user's point and purchaser will not pay separately for transit insurance clause.

2. The equipments shall adhere standard DGS&D Guarantee / Warranty Clause applicable for a period of 12 months. For details refer to DGS&D Standard Warranty Clause 27 of DGS&D - 230 & Clause 18 of DGS&D-1001

3. Payment terms :

98% payment would be payable against proof of inspection and provisional consignee receipt certificate issued by consignee for having received the stores on said to contain basis. The balance 2% after successful demonstration and acceptance of stores by consignee in good condition and on submission of Bank Guarantee for balance 2% value of order valid till 2 months beyond the warranty period of 1 years indemnifying the purchaser against all losses incurred by the purchase during the guarantee/warranty.

3. Demonstration will be carried out free of cost.

4. No assistance for import of finished product or raw material will be provided.

5. `NIL' against Octroi Exemption Certificate to be provided by the indenter along with order otherwise extra, if applicable.

6. Octroi Duty and Local Taxes:

Normally materials to be supplied to Govt. Department against Govt. contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such exemption only on production of such exemption certificate from any authorized officer. Contractors should ensure that stores ordered against contracts placed by this office are exempted from levy of town duty/Octroi duty, Terminal tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the purchase officer or indenter concerned, to

avoid payment of such local taxes or duties. Octroi, entry tax etc. on buyers account in absence of relevant exemption certificate.

7. Supply of Road Permits/ Way bill by the indenter/consignees:

In all such cases where the requirement of Road Permit/Way Bills for entry of goods into a particular State is mandatory, the following provisions shall be strictly followed: -.

(a) The supplier shall request the indenter/consignee for providing Road permit/ Way bill within 10 days of the receipt of the Supply order. The supplier shall furnish all the necessary information and documents in this regard to Indenter/consignee.

(b) On receipt of the above request from the supplier, the indenter/consignee concerned shall arrange to provide the Road permit/Way Bill in the prescribed form to the supplier within a maximum period of two weeks so that the same reaches the supplier before the dispatch of the stores. However, in cases where the Road permit/Way Bill is issued on proof of actual invoice of the material, the consignee shall arrange to provide the Road permit/Way Bill from appropriate authorities within a maximum period of 5 days from the receipt of invoice.

(c) The supplier shall not be held responsible for any delay in supply due to non- supply/delayed supply of Road permit/Way bill by the indenter/consignee.

(d) All cases of abnormal delay in providing requisite details/ documents by the supplier or issue of Road permit/Way bill by indenter/consignee, the same shall be reported to DGS&D.

8. Signing of Inspection Notes issued by QA Wing of DGS&D : Instructions to Indentors/Consignees.

Advance Payment Copy of Inspection Note for claiming 98% payment (copy No.1):

This is a provisional receipt. It only be tokens the receipt of stores by the consignee and is without prejudice to his rights of inspection and rejection under the general condition to contract. It is issued on said to contain basis the Contractor remaining responsible for proving the total quantities actually delivered. Consignee mentioned in the Inspection Notes should sign (in INK) & put his official rubber stamp on the Advance Payment Copy of Inspection Notes IMMEDIATELY on the receipt of the material and handover the same to the company's authorized representative. Where this is not possible or inconvenient, it should be signed (in INK) by an official authorized by the consignee in that behalf. In such cases, the official signing the receipt certificate should indicate his designation and the official on whose behalf he is signing; and put his official rubber stamp.

Balance payment & Accounts Copy of Inspection Note (Copy no 2& 5) for claiming 2% balance payment.

Within 90 days from the date of material received, Consignee mentioned in the Inspection Notes should sign (in INK) & put his official rubber stamp on the Balance & Accounts office copy of Inspection Notes and should fill up the columns of Receipt Voucher No.

In cases where the supply is incomplete or defective or the supplier do not carry out commissioning/demonstration of the stores within the period as per (i) above, the consignee shall report such cases immediately to the supplier and DGS&D.

In cases where the consignees do not release copy 2 and 5 of I/Notes within the period as (i) above for the reasons which are considered not valid by the supplier, they may approach DGS&D with complete details for authorization of balance payment without copy 2 and 5 of I/Notes and the same shall be considered by DGS&D on merits of each case..

Schedule -D

Special Instructions to R/C holders:

Rate contract holders are advised that before entertaining the supply order, they should ensure the availability of following certificates from DDO's.

a) That they are Central Government Department drawing funds from consolidated fund of India.

- b) The expenditure involved for the purchase has received the sanction of the competent financial authority.
- c) The funds are available under the proper head in the sanctioned budget allotment for the year.
- d) They have been fully authorized by the department to sign the supply order and incur the liability in respect of stores being ordered.

(Shashi K. Sud)

ASSISTANT DIRECTOR (S)

For and on behalf of the purchasers named in the schedule/Form DGS&D-1001

ANNEXURE A: Detailed specification of models

Item 1

Descriptions: 3GHz, Spectrum Analyzer

Model No. N9340B with option PA3,AMA,DMA, INM & ABA

PA3, 3GHz pre Amplifier

AMA, AM/FM Modulation Analysis

DMA, ASK/FSK Modulation Analysis

INM, Spectrogram Monitoring

ABA, English user`s guide, printed

Make: Agilent Technologies

Item No.3

Descriptions: Spectrum Analyzer 13GHz

Model No. N9010A with option 513 & EMC

Option 513, 9 KHz to 13.6GHz

Including Option EMC, EMC Functionality

Make: Agilent Technologies

Item No.4

Descriptions: Spectrum Analyzer 26.5GHz

Model No. N9010A with 526 & EMC

Option 526, 9 KHz to 26.5GHz

Including Option EMC, EMC Functionality

Make: Agilent Technologies

Item no.7.

Descriptions: External Power Sensor: 10MHz to 18GHz, -67dBm to +23dBm

Model No. U2000A,

Make: Agilent Technologies

Item No. 8.

Descriptions: Tracking Generator for 3 GHz Spectrum Analyzer

Model No. N9340B-TG3,

Make: Agilent Technologies

SCHEDULE - C

List of Parallel Rate Contract For Spectrum Analyzer & Signal Analyzer

Sr.No.	NAME & FULL ADDRESS OF FIRM	R/C NO & DATE
1	AGMATEL INDIA PVT LTD E-366, 2nd Floor, Nirman Vihar, Vikas Marg, Delhi 110092 Mr. A.K.Aggarwal- 9810054742, E- mail:aka@agmatel.com Mr.Vijay Malhotra- 9810054741/ 43064306 DELHI 110092	S_ANA/IT-4/RC- D2060000/0212/84/F0198/1519 25-FEB-11
2	SYNERGY MEASUREMENT TECHNOLOGIES PVT. LTD. 25/C, Nicholson Road, Tarbund, Secunderabad - 500 009 AP Email: sales@synergytech.in, debashis@synergytech.in Tele No. 040-4444 4040 / 50 / 35, Mr. Debashis - 09830067183 ANDHRA PRADESH 500 015	S_ANA/IT-4/RC- D2060000/0212/84/F0709/1518 25-FEB-11
3	SRB INSTRUMENTS PVT. LTD. B-28/34 Subhash Chowk, Laxmi Nagar, Delhi- 110092 Tele No. 011-22413422 / Fax: 011-22459443 Rakesh Pandita: 0-9810190551/ mail: rakesh@srb- instruments.com Vinod Pandita: 09810445563 DELHI 110092	S_ANA/IT-4/RC- D2060000/0212/84/F0364/1524 14-MAR-11
4	MEERA AGENCIES PVT. LTD Plot No. 526, Udyog Vihar, Phase-V, Gurgaon- 122016 Ph- 0124-4226990/ Fax: 0124-4226991 E-mail: pnkaushik@meeraagencies.com/ wwwmeeraagencies.com Mob: 09811309591/ 09873904575 HARYANA 122016	S_ANA/IT-4/RC- D2060000/0212/84/F0368/1523 14-MAR-11

NOTE:

(1) Before placing supply order, DDOs are advised to check with DGS&D or on the website whether any further RCs

have been awarded or amendments to Rate Contract have been issued.

(2) All the R/C particulars including prices in respect of individual R/C's are available on DGS&D website, which can be accessed by all. The access code of DGS&D website is <http://dgsnd.gov.in>.

ANNEXURE

Common requirements for all main equipments:-

1. The supply shall include one set of operation and maintenance manual for each equipment.

2. Type test reports for each model shall be from a govt. lab. Type testing shall consist of verification of all the features & functional requirements including environmental tests. The environmental tests sequence will be as under:-

Dry Heat Test : For 16 hrs. at a temp. of 55 degree C in accordance with IS:9000/part-3/section-5/1977 (reaffirmed in 2004).

Cold Test : For 4 hrs. at a temp. of (-)10 degree C in accordance with IS:9000/part-2/section-4/1977 (reaffirmed in 2004).

Damp Heat Test : For 2 Cycles of 24 hours (12+12h) each at a temp. of 40 degree C & 95 % RH in accordance with IS:9000/part-5/section-2/1981 (reaffirmed in 2004).

The analyzer shall be checked for all the functional requirements before and after 1-2 hours recovery period of the above environmental tests sequence.

There shall be no deterioration in the functional parameters.

OEM Type Test reports with environmental testing to an equivalent International Standard shall also be acceptable in this case.

Supplier shall certify that the equipment shall be suited to Indian Environmental Conditions as above.

3. The analyzers shall be as per ISO:14001 certification regarding Environmental Management.

Spectrum Analyzers

Specification:-

(A) Spectrum Analyzer 3 GHz

- | | |
|---|------------------------------------|
| 1. Frequency Range | : 9 kHz to 3 GHz |
| 2. Aging Rate | : 1×10^{-6} /year |
| 3. Frequency Counter | |
| (a) Resolution | : 1 Hz Min. |
| (b) Frequency span | : 0 Hz (Zero span), 1 kHz to 3 GHz |
| 4. spectral Purity | |
| (a) SSB Phase Noise @ 10 KHz offset | : <-90 dBc/Hz at 1 GHz |
| (b) Harmonics, @ -40dBm level | : -60 dBc |
| 5. Sweep time | |
| (a) span ≥ 1 kHz | : 100 ms to 1000 s |
| (b) span =0 Hz | : 100 micro s to 20 s |
| 6. Bandwidth | |
| (a) Resolution Bandwidth (-3dB) | : 100 Hz to 3 MHz in steps |
| (b) video Bandwidth | : 30 Hz to 1 MHz in steps |
| 7. Amplitude | |
| (a) Max.Input level for Protection | : +30 dBm |
| (b) Max.input level for Measurement | : +20 dBm |
| (c) Level measurement uncertainty | : ≤ 2 dB |
| (d) Displayed average noise level, (300 Hz RBW,10 Hz VBW) | : ≤ -110 dBm |
| 8. Markers | : Normal and delta |
| 9. Trigger | : Free run, Video, External |

- 10. Display : TFT color display
- 11. Interface : USB
- 12. Software : For transfer of screen shot/
measurement data / to PC
- 13. Operating Temperature : 0 to 45 degree C temperature and
80% RH at 40 degree C
- 14. Power Requirement : 230 +/- 10% VAC,50 Hz

(B) Spectrum Analyzer 6 GHz

- 1. Frequency Range : 9 kHz to 6 GHz
- 2. Aging Rate : 1×10^{-6} /year
- 3. Frequency Counter
- (a) Resolution : 1 Hz Min.
- (b) Frequency span : 0 Hz (Zero span), 1 kHz to 6 GHz
- 4. Spectral Purity
- (a) SSB Phase Noise @ 10 KHz offset : <-90 dBc/Hz at 1 G Hz
- (b) Harmonics, @ -40dBm level : -60 dBc
- 5. Sweep time
- (a) span ≥ 1 kHz : 100 ms to 1000 s
- (b) span =0 Hz : 100 micro s to 20 s
- 6. Bandwidth
- (a) Resolution Bandwidth (-3dB) : 100 Hz to 3 MHz in steps
- (b) video Bandwidth : 30 Hz to 1 MHz in steps
- 7. Amplitude
- (a) Max.Input level for Protection : +30 dBm
- (b) Max.input level for Measurement : +20 dBm
- (c) Level measurement uncertainty : ≤ 1 dB
- (d) Displayed average noise level, : ≤ -110 dBm
(300 Hz RBW,10 Hz VBW)
- 8. Markers : Normal and delta
- 9. Trigger : Free run, Video, External
- 10. Display : TFT color display
- 11. Interface : USB
- 12. Software : For transfer of screen shot /
measurement data / to PC
- 13. Measurement features : C/N RATIO , AM % , Time domain
Power Measurement, Channel Power
Measurement,Phase Noise Measurement,
TOI, OBW
- 14. Operating Temperature : 0 to 45 degree C temperature and 80%
RH at 40 degree C
- 15. Power Requirement : 230 +/- 10 % VAC,50 Hz

(C) Spectrum Analyzer 13 GHz

- 1. Frequency Range : 9 kHz to 13 GHz
- 2. Aging Rate : 1×10^{-6} /year
- 3. Frequency Counter
- (a) Resolution : 1 Hz to 10 KHz
- (b) Frequency span : 0 Hz (Zero span), 100 Hz to 13 GHz
- (c) Max. Span Accuracy : 3%
- 4. Spectral Purity
- (a) SSB Phase Noise @ 10 KHz offset : <-90 dBc/Hz at 1 GHz
- (b) Harmonics, @ -40dBm level : ≤ -60 dBc
- 5. Sweep time
- (a) span ≥ 10 Hz : 100 ms to 1000 s

(b) span =0 Hz : 100 micro s to 20 s

6. Bandwidth

(a) Resolution Bandwith (-3dB) : 10 Hz to 3 MHz in steps

(b) video Bandwidth : 10 Hz to 1 MHz in steps

7. Amplitude

(a) Max.Input level for Protection : +30 dBm

(b) Max.input level for Measurement : +20 dBm

(c) Level measurement uncertainty : 2.5 dB

(d) Displayed average noise level, : <-130 dBm for 10 MHz to 3 GHz
(100 Hz RBW,1 Hz VBW) <-125 dbm for 3 GHz to 13 GHz

(e) Quasi Peak Detector : EMI b/w(6dB), 9 Khz,120 KHz

8. Markers : Normal and delta

9. Trigger : Free run, Video, External

10. Traces : Max. 3

11 Display : Colour TFT displaying with provision for 3 traces

12. Interface : USB

13. Measurement features : C/N RATIO, AM % ,Adjacent Channel Power and occupied Bandwidth, Channel Power Measurement,Phase Noise Measurement

14. Operating Temperature : 0 to 45 degree C temperature and 80% RH at 40 degree C

15. Power Requirement : 230 +/- 10 % VAC,50 Hz

(D) Spectrum Analyzer 26.5 GHz

1. Frequency Range : 9 kHz to 26.5 GHz

2. Aging Rate : 1×10^{-6} /year

3. Frequency Counter

(a) Resolution : 1 Hz to 10 kHz

(b) Frequency span : 0 Hz (zero span),100 Hz to 26.5 GHz

(c) Max. Span Accuracy : 1%

4. Spectral Purity

(a)SSB Phase Noise @ 10KHz offset : <-90 dBc/Hz at 1 GHz

(b)Harmonics, @ -40dBm level : </=-60 dBc

5. Sweep time

(a) span>/= 10 Hz : 2.5 ms to 1000 s

(b) span = 0 Hz : 10 micro s to 2000 s

6. Bandwidth

(a) Resolution Bandwith (-3dB) : 10 Hz to 3 MHz in steps

(b) video Bandwidths : 30 Hz to 1 MHz in steps

7. Amplitude

(a) Max.Input level for Protection : +30 dBm

(b) Max.input level for Measurement : +20 dBm

(c) Level measurement uncertainty : 2.5 dB

(d) Displayed average noise level, : <-110 dBm for 10 MHz to 3 GHz
(300 Hz RBW,10 Hz VBW) <-105 dBm for 3 GHz to 13 GHz
< -95 dBm for 13 GHz to 26.5 GHz

(e) Quasi Peak Detector : EMI b/w(6dB),9kHz,120 kHz

8. Markers : Normal and delta

9. Trigger : Free run, Video, External

10. Traces : Max.3

11. Display : TFT color display with provision for 3 Traces

- 12. Interface : USB
- 13. Measurement features : C/N RATIO, Adjacent Channel Power and occupied Bandwidth, Channel Power measurement, Phase Noise Measurement.
- 14. Operating Temperature : 0 to 45 degree C temperature and 80% RH at 40 degree C
- 15. Power Requirement : 230 +/- 10 % VAC, 50 Hz

(E) Spectrum Analyzer 7 GHz

- 1. Frequency Range : 9 kHz to 7 GHz
- 2. Aging Rate : 1×10^{-6} /year
- 3. Frequency Counter
 - (a) Resolution : 2 Hz Min.
 - (b) Frequency span : 0 Hz (Zero span), 1 kHz to 7 GHz
- 4. Spectral Purity
 - (a) SSB Phase Noise @ 10 KHz offset : < -90 dBc/Hz at 1 GHz
 - (b) Harmonics, @ -40dBm level : -60 dBc
- 5. Sweep time
 - (a) span ≥ 1 kHz : 100 ms to 1000 s
 - (b) span ≤ 0 Hz : 100 micro s to 20 s
- 6. Bandwidth
 - (a) Resolution Bandwidth (-3dB) : 10 Hz to 3 MHz in steps
 - (b) video Bandwidth : 30 Hz to 1 MHz in steps
- 7. Amplitude
 - (a) Max. Input level for Protection : +30 dBm
 - (b) Max. input level for Measurement : +20 dBm
 - (c) Level measurement uncertainty : ≤ 1 dB
 - (d) Displayed average noise level, (300 Hz RBW, 10 Hz VBW) : ≤ -110 dBm
- 8. Markers : Normal and delta
- 9. Trigger : Free run, Video, External
- 10. Display : TFT color display
- 11. Interface : USB
- 12. Software : For transfer of screen shot / measurement data / to PC
- 13. Measurement features : C/N RATIO, AM % , Time domain Power Measurement, Channel Power Measurement, Phase Noise Measurement, TOI, OBW
- 14. Operating Temperature : 0 to 45 degree C temperature and 80% RH at 40 degree C
- 15. Power Requirement : 230 +/- 10 % VAC, 50 Hz

(F) Spectrum Analyzer 40 GHz

- 1. Frequency Range : 9 kHz to 40 GHz
- 2. Aging Rate : 1×10^{-6} /year
- 3. Frequency Counter
 - (a) Resolution : 1 Hz to 10 kHz
 - (b) Frequency span : 0 Hz (zero span), 100 Hz to 40 GHz
 - (c) Max. Span Accuracy : 1%
- 4. Spectral Purity
 - (a) SSB Phase Noise @ 10KHz offset : < -90 dBc/Hz at 1 GHz
 - (b) Harmonics, @ -40dBm level : ≤ -60 dBc
- 5. Sweep time

- (a) span \geq 10 Hz : 2.5 ms to 1000 s
- (b) span = 0 Hz : 10 micro s to 2000 s
- 6. Bandwidth
 - (a) Resolution Bandwidth (-3dB) : 10 Hz to 3 MHz in steps
 - (b) video Bandwidths : 30 Hz to 1 MHz in steps
- 7. Amplitude
 - (a) Max.Input level for Protection : +30 dBm
 - (b) Max.input level for Measurement: +20 dBm
 - (c) Level measurement uncertainty : 2.5 dB
 - (d) Displayed average noise level, : <-110 dBm for 10 MHz to 3 GHz
(300 Hz RBW,10 Hz VBW) <-105 dBm for 3 GHz to 13 GHz
< -95 dBm for 13 GHz to 40 GHz
 - (e) Quasi Peak Detector : EMI b/w(6dB),9kHz,120 kHz
- 8. Markers : Normal and delta
- 9. Trigger : Free run, Video, External
- 10. Traces : Max.3
- 11. Display : TFT color display with provision for 3 Traces
- 12. Interface : USB or RS 232 Interface and GPIB
- 13. Measurement features : C/N RATIO, Adjacent Channel Power and occupied Bandwidth, Channel Power measurement, Phase Noise Measurement,
- 14. Operating Temperature : 0 to 45 degree C temperature and 80% RH at 40 degree C
- 15. Power Requirement : 230 +/- 10 % VAC, 50 Hz

Add-on items for Spectrum Analyzers

Specification :-

1. Tracking generator for 3 GHz Spectrum Analyzer
 - (a) Frequency range : 1 MHz to 3 GHz,
 - (b) Output level : -20 dBm to -2 dBm
2. Tracking generator for 6/7 GHz Spectrum Analyzer
 - (a) Frequency range : 1 MHz to 6/7 GHz,
 - (b) Output level : -20 dBm to 0 dBm
3. Gated sweep for Spectrum Analyzers 3 GHz, 6 GHz, 7 GHz, 13 GHz, 26.5 GHz & 40 GHz.
 - (a) Gated Sweep : External, IF level, Video
 - (b) Gate Delay : 1 us to 100s
 - (c) Gate Length : 1 us to 100s

LIST OF ALL AMENDMENTS

For RC No. S_ANA/IT-4/RC-D2060000/0212/84/F0364/1524

Sr No.	Amendment No.	Amendment Date	Effective From	Amendment In
1	S_ANA/IT-4/RC-D2060000/0212/84/F0364/1524/37038	29-JUN-11	22-JUN-11	Amendment in Rate