

S E R V I C E N O T E

SUPERSEDES: NONE

ESG "B" Series RF Signal Generator**Serial Numbers:** See below:**Duplicate Service Notes:**

E4400B-03A	Serial Numbers: US38440487/US39340699 GB38450200/GB39340269
E4420B-02A	Serial Numbers: US38440464/US39340716 GB38450272/GB39340313
E4421B-02A	Serial Numbers: US38440492/US39340834 GB38450457/GB39340827
E4422B-02A	Serial Numbers: US38440311/US39340523 GB38450127/GB39340228
E4430B-02A	Serial Numbers: US38440210/US39340287 GB38450163/GB39340178
E4431B-02A	Serial Numbers: US38440236/US39340393 GB38450249/GB39340275
E4432B-02A	Serial Numbers: US38441373/US39342028 GB38450432/GB39340694
E4433B-01A	Serial Numbers: US38440715/US39341027 GB38450413/GB39340593

Family Reference Board Module Replacement due to failure of 1 GHz VCO causing front panel display error 513 "Het band VCO Unlock" and frequency inaccuracy below 250 MHz.

Continued

DATE: February 2000

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	☐ IMMEDIATELY ☒ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: LABOR 1.0 assy/6.0 automated adjust Hours	
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ☒ SERVICE CENTER	SERVICE INVENTORY: ☐ RETURN ☐ SCRAP ☒ SEE TEXT	USED PARTS: ☐ RETURN ☐ SCRAP ☒ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		
AUTHOR: JE		ENTITY: 5331	
ADDITIONAL INFORMATION:			

To Be Performed By: Agilent Technologies-Qualified Personnel

Parts Required:

P/N	Description	Quantity
E4400-60010	Bd Assy Reference, TCXO(NEW)	1
E4400-60009	Bd Assy Reference, OCXO(Option 1E5)(New)	1

Situation:

The ESG E4400B instrument series Het band VCO unlocks due to a non-linearity in the tuning characteristics of the surface acoustic wave oscillator used to generate the heterodyne band (below 250 MHz) in the ESG. This VCO is located on the Reference Board Assembly Module (A11). Instrument front panel error 513 results from this failure and frequency inaccuracy below 250 MHz. Information from the VCO vender indicates an expected failure rate of 8% to 12% may be experienced over the specific ESG population.

Solution / Action:

The resolution plan is to repair on failure. Replace the reference board assembly and recalibrate the ESG A/D RF Signal Generator in accordance to the Post-Repair Procedures; located in the ESG Service Guide (P/N: E4400-90155/Print Date Sept 99). Ship failed units to Agilent Technologies customer service center as described in the routing guide. Otherwise, post-repair may be performed using the ESG Service Software along with the ESG A/D Calibration Guide (P/N: E4400-90325/Print Date Nov 99). All defective Reference Board Assemblies have been purged from inventory and ALL failed E4400-60139/69139 and E4400-60140/69140 assemblies should be scrapped.

Changes to effected range of serial numbers or repair strategy will be communicated in revisions to this service note