

N5242AH85-02G

S E R V I C E N O T E

Supersedes:
N5242AH85-02F

N5242AH85 PNA Series Microwave Network Analyzers

Serial Numbers: See list at end of service note.

Possible faulty N5242A/AS/H85 performance due to defect in microcircuit assembly.

Parts Required:

| P/N | Description | Qty. |
|-----------|--|---------|
| 5087-6315 | Microcircuit Cobra Bridge (exchange) <i>Or 5087-7315, if not available</i> <i>Or 5087-7757, if not available</i> | up to 5 |
| 5087-6729 | Cobra Bridge Napili (exchange) <i>Or 5087-7729, if not available</i> | 0 to 1 |

ADMINISTRATIVE INFORMATION

| | | |
|---|--|--|
| SERVICE NOTE CLASSIFICATION: | | |
| MODIFICATION RECOMMENDED | | |
| ACTION CATEGORY: AGREEABLE TIME | | STANDARDS LABOR: 5.5 Hours (includes 4 hours of calibration time) |
| LOCATION CATEGORY: | X ON-SITE X SERVICE CENTER X CHANNEL PARTNER | SERVICE INVENTORY: N/A USED PARTS: RETURN |
| AVAILABILITY: | August 31, 2013 | NO CHARGE AVAILABLE UNTIL: September 1, 2013 |
| AUTHOR: | MF | PRODUCT LINE: WN |
| <p>ADDITIONAL INFORMATION: PNA models affected: N5241A, N5242A, N5242AS, and N5242AH85. This Service Note to be reevaluated after August 31, 2013. History: 1) N5242AH85-02 dated 9-21-2010. 2) N5242AH85-02B service note was released Oct 28, 2010 for the following reasons: a) change part descriptions; b) change the Opt 029 replacement bridge from 5087-7716 to 5087-7729; c) add more serial numbers (due to update); d) combine N5242A/AS/H85 serial numbers in one list. 3) N5242AH85-02B dated Nov 2, 2011 added a link to a web page that shows which PNAs have been reworked. 4) N5242AH85-02C dated Jan 14, 2011 changed Action Category from "On Specified Failure" to "Agreeable Time." Also changed text in Actions Required top bullet to say that all microcircuits in the table must be replaced. 5) N5242AH85-02D dated March 25, 2011 changed Actions Required text to emphasize the necessity of doing the post-repair procedures. 6) N5242AH85-02E dated April 14, 2011 changed Parts Required by including the exchange parts along with the new parts. 7) N5242AH85-02F dated Jan 31, 2012 changed Parts Required by including the RoHS compliant 5087-7757 Cobra Bridge. 8) N5242AH85-02G, dated March 29, 2012, changed the email address of CTD Support.</p> | | |

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Situation:

There is a possibility of faulty PNA performance because of a defect in microcircuit assembly. The assembly defect has been fully resolved and Agilent is committed to replacing all affected microcircuits as soon as possible.

Solution/Action:

- Replace ALL of the microcircuits listed in the table below unless this rework has already been done. (See http://na.tm.agilent.com/pna/service/PNA_Microcircuits.html. A green serial number on this Web page indicates the rework has already been done.) If the rework has already been done, replace only those microcircuits that fail.

| PNA Options | Reference Designator | Description | Replacement Microcircuit |
|-------------|------------------------|------------------|---|
| All | A25, A26, A27, and A28 | Test Port Bridge | 5087-6315 or 5087-7315 or 5087-7757 (see “Parts Required” on previous page) |
| 224 or 423 | A50 | Combiner | |

- **Option 029 only:** Reference designator A54, described as the Test Port 2 Bridge, is either the 5087-7315 or the 5087-7729 microcircuit. If either fails, replace it with the 5087-6729 or 5087-7729.
- Refer to the PNA Service Guide chapter 7 for repair and post-repair procedures. To view the online Service Guide, see the numbered list below for instructions.
- Return the defective components using the exchange process.
- If you have replaced all of the microcircuits as per this service note, email scott_stewart@agilent.com or ctd-soco_support@agilent.com, providing the instrument model and serial number along with part numbers and quantities of components that were replaced.

Refer to the PNA Service Guide for instructions on removing/replacing microcircuits, post-repair adjustments/procedures, and verification/performance tests. To view this Service Guide information, use the following steps:

1. Go to <http://www.agilent.com>.
2. Enter your PNA model number (Ex: N5241A) in the **Search** box and click **GO**.
3. Scroll down to the heading **Manuals & Guides** and click on the title/hyperlink for the Service Guide. If you don't find your Service Guide listed on the Web page that is displayed initially, click on the **More** hyperlink.
4. When the PDF of the Service Guide is displayed, look at the bookmarks in the left column. Expand the Contents section by clicking on the plus sign next to its bookmark.
5. Scroll through the Contents section bookmarks to locate “Repair & Replacement Procedures.”
6. Click on the bookmark hyperlinks for the repair and post-repair procedures and follow the instructions.
Successful completion of the post-repair adjustments/procedures and verification/performance tests will set the analyzer to its pre-repair condition. All pre-repair certification still applies.

NOTE: The PNA contains extremely sensitive components that can be ruined if mishandled. Follow instructions carefully when making cable connections, especially wire harness connection.

Serial Numbers:

- **MY4720...** 0101 to 0107, 0109 to 0114, 0117 to 0118, 0121 to 0124, 0126, 0128 to 0130, 0132 to 0133, 0136 to 0137, 0139 to 0140, 0142 to 0146, 0148 to 0155, 0160 to 0161, 0165 to 0171, 0173 to 0175, 0177 to 0189, 0193 to 0194, 0198, 0200, 0202 to 0208, 0210 to 0215, 0217 to 0219, 0221 to 0225, 0227 to 0228, 0230 to 0236, and 0240.
- **MY4742...** 0260 to 0261, 0266, 0273 to 0274, 0277 to 0283, 0286 to 0289, 0291 to 0294, 0296 to 0299, 0301 to 0303, 0305 to 0316, 0318, 0324 to 0333, 0335 to 0343, 0347 to 0349, 0351 to 0352, 0354 to 0360, 0362 to 0365, 0367 to 0380, 0384 to 0397, 0399 to 0400, 0405, and 0409 to 0410.
- **MY4822...** 0502 to 0504, 0507, 0520 to 0521, 0523 to 0524, 0526, 0528 to 0530, 0532, 0534 to 0537, 0539, 0542 to 0543, 0546 to 0548, 0552 to 0553, 0556 to 0564, 0566 to 0568, 0570, 0572 to 0576, 0578, 0580 to 0584, 0589 to 0592, 0594 to 0596, and 0599 to 0605.
- **MY4832...** 0666 to 0670, 0672 to 0676, 0679 to 0688, 0693, 0695, 0697 to 0703, 0707, 0712 to 0718, 0721, 0723 to 0724, 0726 to 0728, 0731, 0733 to 0735, 0737 to 0741, 0743, 0745, 0747 to 0748, and 0750.
- **MY4842...** 0104 to 0107, 0801 to 0802, 0808 to 0810, 0813, 0816, 0818, 0820, 0827 to 0829, 0831 to 0836, 0844 to 0850, 0855 to 0857, 0859 to 0862, 0867, 0870 to 0876, 0878, 0880 to 0887, 0893 to 0896, 0902 to 0909, 0912 to 0913, 0916 to 0921, 0922, 0924 to 0927, 0931 to 0933, 0936, 0938, 0940 to 0942, 0944 to 0945, 0947 to 0951, 0953 to 0962, 0964, 0966 to 0969, 0971 to 0976, 0978 to 0980, 0982 to 0983, 0986 to 0988, 0990, 0992 to 0994, 0996, 0998 to 1002, 1005, 1008, 1010, 1013 to 1020, and 1023.
- **MY4852...** 0151 to 0170, and 0172 to 0180.
- **MY4932...** 1100 to 1102, 1105, 1108 to 1109, 1111 to 1113, 1116 to 1118, 1120 to 0021, 1124 to 1125, 1127, 1129, 1131 to 1135, 1142 to 1143, and 1152.
- **MY4937...** 0200 to 0202.
- **MY4942...** 1202 to 1213, 1215 to 1216, 1218, 1220, 1222 to 1225, 1227, 1230 to 1231, 1233, 1235 to 1249, 1251 to 1252, 1257 to 1258, 1260, 1262 to 1263, 1275, 1279, 1282 to 1283, 1286 to 1293, 1300, 1302 to 1304, 1306, 1308 to 1313, 1323 to 1329, 1331 to 1332, 1335, 1342 to 1343, 1346 to 1347, 1353, 1355, 1368, 1383, 1389, and 1393.
- **MY4947...** 0252 to 0254, 0263, and 0265 to 0266.
- **MY5007...** 1004 to 1008.
- **SG4720...** 0101 to 0104.
- **SG4742...** 0101 to 0103.
- **SG4822...** 0101 to 0105.
- **SG4832...** 0101 to 0102.
- **SG4842...** 0101 to 0110, and 0112.
- **SG4852...** 0101.
- **SG4932...** 1100 to 1103.
- **SG4942...** 0101 to 0102.
- **US 4652...** 0101 to 0107, 0109 to 0110, 0112 to 0115, 0117, 0119, 0122, 0124, 0127, 0129, 0131 to 0141, 0143 to 0147, 0154, and 0156 to 0187.
- **US4742...** 0189 to 0196, 0201, and 0207 to 0208.
- **US4802...** 0200, 0202 to 0221, 0223 to 0224, 0226 to 0227, 0229, 0233 to 0234.
- **US4832...** 0222, 0228, 0230 to 0231, and 0235.
- **US4932...** 0219 to 0223.