RELEASED

File : 134524A.doc
Doc. : 0134-0524
Rev. : A
ECN : 1816
Date : 11/13/01

Initial Test Procedure
134A T-Bug / 135A E-Bug

Used on:
0134-0503-1
0135-0503-1

Engineering approval:

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1 GENERAL

1.1 Applicability

This test procedure should be performed on all 134A T-Bug and 135A E-Bug PCB Assemblies (0134-0503-1 and 0135-0503-1) prior to coating.

1.2 Equipment List

The following is a list of equipment necessary for the test procedure:

- 0134-0520 T-Bug Test Station (with Antenna Chamber)
- Fluke 77 DMM or equivalent
- Non-ferrous adjustment tool

1.3 Initial TS Setup

1.3.1 Attach the DMM to the red and black jacks (observing polarity) on the rear of the TS.

1.3.2 Install the UUT in the Antenna Block.

1.3.3 Connect P1 and P2 to the UUT terminals.

2 ELECTRICAL TESTS

2.1 Power Test

2.1.1 Select T1 by pressing the UUT ON/SEL button on the TS front panel until the T1 LED flashes.

2.1.2 Establish the following switch settings on the TS.

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	**T1 (E1)**	**1's**	**LOW**	**HIGH**	**HDSL**	**DIFF**	**CURRENT**

Note: The VERSION switch on the TS is used to select the UUT type.
Select T1 for the 134A T-Bug PCB Assembly (0134-0503-1).
Select E1 for the 135A E-Bug PCB Assembly (0135-0503-1).

2.1.3 Verify the DMM reading is **.**175V-**.**225V.

2.1.4 Verify the T1 LED on the TS front panel is flashing and that a corresponding speaker tick is heard from the TS speaker.

2.1.5 Set the BATTERY switch to LOW on the TS front panel.

2.1.6 Verify the DMM reading is **.**175V-**.**225V

2.1.7 Verify the T1 LED flashing and speaker tick rate has become noticeably slower than the rate observed in step 2.1.4.

2.2 T1 (E1) Mode Balance

2.2.1 Select T1 using the UUT ON/SEL button.

2.2.2 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	LOW	**NORM**	**T1/E1**	DIFF	CURRENT

Rotate C39 through its complete range and verify the presence of two DMM peaks.
Adjust C39 for a maximum reading on the DMM.
Verify the DMM is reading **.**850V-1**.**25V.

2.2.3 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**HIGH**	NORM	T1/E1	**BAL**	**AUDIO**

Rotate C41 through its complete range and verify the presence of two signal dips on the TS front panel meter.
Adjust C41 for a minimum reading on the TS front panel meter.
Verify the TS front panel meter is reading <50.

2.2.4 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**LOW**	NORM	T1/E1	**DIFF**	AUDIO

Adjust C39 for a maximum reading on the DMM.
Verify the DMM is reading .850V-1.20V.

2.2.5 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**HIGH**	NORM	T1/E1	**BAL**	AUDIO

Adjust C41 for a minimum reading on the TS front panel meter.
Verify the TS front panel meter is reading <50.

2.2.6 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	LOW	**HIGH**	T1/E1	DIFF	**CURRENT**

Verify the DMM is reading 1.10V-1.50V.

2.2.7 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	LOW	**NORM**	T1/E1	**MUTUAL**	**AUDIO**

Verify the DMM is reading <.500V.

2.3 HDSL Mode

2.3.1 Select HDSL using the UUT ON/SEL button.

2.3.2 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	LOW	NORM	**HDSL**	**DIFF**	**CURRENT**

Verify the DMM is reading 0.500V - 0.900V.

2.3.3 Set the EXT. METER switch to AUDIO.
Verify the DMM is reading 0.400V - 0.800V.

2.3.4 Set the AMPLITUDE switch to HIGH.
Set the COUPLING switch to BAL.
Verify the TS front panel meter is reading <50.

2.4 ADSL Mode Balance

2.4.1 Select ADSL using the UUT ON/SEL button.

2.4.2 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**LOW**	NORM	ADSL	**DIFF**	**CURRENT**

Rotate C33 through its complete range and verify the presence of two DMM peaks.
Adjust C33 for a maximum reading on the DMM.
Verify the DMM is reading 1.00V-1.50V.

2.4.3 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**HIGH**	NORM	ADSL	**BAL**	CURRENT

Rotate C35 through its complete range and verify the presence of two signal dips on the TS front panel meter.
Adjust C35 for a minimum reading on the TS front panel meter.
Verify the TS front panel meter is reading <50.

2.4.4 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**LOW**	NORM	ADSL	**DIFF**	**AUDIO**

Adjust C33 for a maximum reading on the DMM.
Verify DMM reading is .950V-1.50V.

2.4.5 Establish the following switch settings on the TS:

Switch	VERSION	PATTERN	AMPLITUDE	BATTERY	FREQUENCY	COUPLING	EXT. METER
Position	T1 (E1)	1's	**HIGH**	NORM	ADSL	**BAL**	AUDIO

Adjust C35 for a minimum reading on the TS front panel meter.
Verify the TS front panel meter is reading <50.

2.4.6 Push UUT "OFF" switch on TS.
2.4.7 Verify UUT turns "OFF".
2.4.8 Remove Unit from Test Station.

END OF TEST