

T1255A-01

Modification Recommended Service Note

Supersedes:
NONE

T1255A LTE Multi-cell Combiner Unit

Serial Numbers:

MY56011001-MY56011015, MY56301002, MY56301003, MY56301006

The Problem

Internal RF switch (model: N1810TL) unable to switch. User calibration fails.

Parts Required:

NONE

ADMINISTRATIVE INFORMATION

ACTION	<input checked="" type="checkbox"/> ON SPECIFIED FAILURE	STANDARDS	
CATEGORY:	<input type="checkbox"/> AGREEABLE TIME	LABOR:	1.0 Hours
LOCATION	<input type="checkbox"/> CUSTOMER INSTALLABLE	SERVICE:	<input type="checkbox"/> RETURN
CATEGORY:	<input type="checkbox"/> ON-SITE (active On-site contract required)	INVENTORY:	<input type="checkbox"/> SCRAP
	<input checked="" type="checkbox"/> SERVICE CENTER		<input type="checkbox"/> SCRAP
	<input type="checkbox"/> CHANNEL PARTNERS		<input checked="" type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL:	End Of Support date
	<input type="checkbox"/> Calibration Required	PRODUCT LINE:	PL_13
	<input checked="" type="checkbox"/> Calibration NOT Required	AUTHOR:	AJGG

ADDITIONAL INFORMATION: No service inventory (no parts required)

Situation:

It has been detected that RF switch model: N1810TL may develop a failure that consists on a low resistance path from one of the drive pins to ground pin, which drops the voltage value at the drive pin, and therefore prevents the switch to commute to the state associated to that drive pin (i.e. state "A"). It is caused by electro migration in the internal control board of N1810TL switch.

A similar issue was also found on the indicator pins of the RF switch.

The initial failure symptom is a fail verdict in a user calibration test case. In one instance, it was found that calibration test cases from H33027 to H33040 did fail.

Solution/Action:

While a quality improvement has been made on the N1810TL switch to avoid this failure to happen, which was implemented in March 2017, the previously shipped T1255A are subject to develop this failure in the future, although until present date only one case has been identified.

It has been decided to implement a fix by removing some of the connections of the switches to the control boards (ground and indicator pins).

Tools Needed:

- T15 Torx Driver Bit
- 9Lbs.In Torque Driver
- PH1 Philips Driver Bit
- 5Lbs.In Torque Driver
- Long Nose Pliers

Follow these steps to remove indicators and ground connection:

1. Remove bottom external cover of the T1255A by releasing the screws holding it in place using a T15 Torx Bit.
2. Remove the switch DC cables by removing the screws securing them to the switches using the PH1 Philips Bit.
3. Unplug the cable from the N181xTL switch.
4. Remove the indicator pins and ground shown below, with a long nose plier.

Note: Be careful not to bend the other pins while doing so.



Removing pins



View of the modified connector

5. Re-plug the cable back to the switch.
6. Fasten the screws holding the DC cables using the PH1 Philips Bit and a 5Lbs.In Torque Driver.
7. Repeat this for all the 24 switches consisting of N1810TL, N1810UL and N1811TL in the T1255A.
Note: For SW18, you can remove the RF cables for easier access to the switch. Do not touch the RF cables for the other switches.
8. Reinstall the bottom cover using the T15 Torx bit and a 9Lbs.In Torque Driver.
9. Verify operation of the switches, and do a basic check of the T1255A by toggling all the switches using L4491A Web interface.

Revision History:

Date	Service Note Revision	Author	Reason for Change
20 Sep 2017	01	Tony Guerrero	As Published