



Subject: **Application for Class II Permissive Change under FCC ID: AS5BBTRX-13 to Add the 5 MHz + 15 MHz Configuration.**

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October 4, 2013

Mr. Sid Sanders, President
Timco Engineering, Inc.
849 N. W. State Road 45, P. O. Box 370
Newberry, Florida 32669

Dear Mr. Sanders:

The initial/original Grant of Equipment Authorization, under FCC ID: AS5BBTRX-13, was issued effective 9/23/2013. The original submittal covered single carrier configurations of 10 MHz, 15 MHz and 20 MHz; plus non-contiguous configurations of 10 + 10 MHz, 10 + 5 MHz and 5 + 10 MHz, operated in a 2x120W MIMO mode. This Class II Permissive Change requests authorization for the additional non-contiguous configurations of 5 + 15 MHz and 15 + 5 MHz, also operated in a 2x120W MIMO mode. Both the original and this Class II filing employ three LTE modulation schemes: QPSK, 16QAM and 64QAM. The authorized 45 MHz spectrum is specified in Rule Part 27.5: 2110 – 2155 MHz Down Link (DL) paired with 1710 – 1755 MHz Up Link (UL).

In accordance with Sec. 2.1043 *Changes In Certificated Equipment*, only the characteristics affected by the change need to be reported. As such, the applicable measurements affected are contained in the Test Report Exhibits, and all other Exhibits submitted with the initial/original filing, that remain unchanged will not be repeated. All initial exhibits, that were granted permanent confidentiality and are unchanged, continue to remain confidential, and will not be repeated with this submission.

Full compliance has been demonstrated with FCC Part 27 — Miscellaneous Wireless Communications Services, Subpart C — Technical Standards, § 27.53 Emission Limits., following the procedural requirements specified in Part 2 — Frequency Allocations And Radio Treaty Matters; General Rules And Regulations Subpart J — Equipment Authorization Procedures.

Under FCC ID: AS5BBTRX-13, the **LTE TRDU2X120-AWS**, is designed to be operated and marketed in the Alcatel-Lucent 9712 cabinet systems. Each **TRDU2X120-AWS** contains two identical transceiver paths and ports. Each transceiver port can either output 60W or 120W maximum at the external antenna connector (EAC). The 120W output per antenna port can consist of either 10+10 MHz, 10+5 MHz or 15+5 MHz configured as two non-contiguous carriers. The **LTE TRDU2X120-AWS** will typically be operated in Multiple Input and Multiple Output (MIMO) mode using multiple antennas.

The data summarized below is in the form presently used by the Commission’s Radio Equipment List, Equipment Acceptable for Licensing.

Manufacturer	Alcatel-Lucent USA, Inc.
Equipment Identification	AS5BBTRX-13
Rules Part Number	Part 27 — Miscellaneous Wireless Communications Services, Subpart C — Technical Standards; 27.53 (h) and 27.50(d)(5) and OET Rules 662911 D01 and D02
Frequency Ranges	Transmit 2110 – 2155 MHz (A, B, C, D, E and F Blocks)
Output Power	From 60 Watts (+47.8 dBm) per single carrier to 2x120W MIMO with two non-contiguous carriers at each Tx Antenna Terminal/Port
Frequency Tolerance	± 0.05 ppm
Emission Bandwidth	5 MHz, 10 MHz, 15 MHz, 20 MHz
Emission Designator	4M72F9W, 9M53F9W, 14M2F9W, 18M8F9W

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices) and the required measurement data and exhibits specific to this request for Class II Permissive Change authorization. The technical contact at Alcatel-Lucent USA, Inc., will comply with any request for additional information should the need arise. The attached exhibits are assembled and presented in the sequence recommended by Timco Engineering, in accordance with the *Table of Contents* attachment.

Sincerely,



Rudolf J. Pillmeier
GPCL Technical Manager
FCC/EMC Compliance Test Group

Att.
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