



Subject: **Application for Class II Permissive Change under FCC ID: AS5BBTRX-08 to Add the Lower 700 MHz Frequency Band BC-17.**

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**September 16, 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 was issued effective 3/11/2013, covering the Upper 700 MHz frequency band. The current product, subject of this Class II Change under FCC ID: AS5BBTYRX-08, is a modified version of the original to enable operation in the **Band Class 17 spectrum 734 – 746 MHz**. The changes made to the original equipment is only software and the Tx/Rx filter. All else remains unchanged: radio, D/A board, power amplifier (PA), frequency determining and stabilization circuitry, block diagram, schematic diagrams, internal photographs, user manual and RF power. As a Class II Permissive Change, these measurements and exhibits need not be repeated.

The **9764 MetroCell Outdoor 2x5W 4G/LTE** is designed for 2xMIMO operation with a long term average power at each of the 2 transmit terminals of 5 W (37 dBm), with a 10 MHz band width (BW). Total composite power at the air interface is then 10 W (40 dBm). This product supports 3 LTE (Long Term Evolution) modulation schemes: QPSK, 16QAM and 64QAM. Design and operation employs the guidelines set forth in ETSI TS 36.104 *LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception (3GPP TS 36.104 version 10.9.0 Release 10)*. 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.

The footnote on the Grant should include, in addition to that on the original Grant:

*The 9764 MetroCell Outdoor 2x5W 4G/LTE is operational in the Lower 700 MHz frequency band, Band Class 17, and supports 2xMIMO with 2 transmit and 2 receive streams. The long term average power rating at each transmit antenna terminal is 5W (37 dBm) and 10 W total composite power*

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 filing, that remain unchanged will not be repeated for brevity. All initial exhibits that were granted permanent confidentiality are unchanged and continue to remain confidential, and will not be repeated with this submission.

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-08
Rules Part Number	Part 27 — Miscellaneous Wireless Communications Services, Subpart C — Technical Standards
Frequency Ranges	Transmit 734 – 746 MHz
Output Power	5 Watts (+37 dBm) at the Tx Antenna Terminal
Frequency Tolerance	± 0.05 ppm
Emission Bandwidth	10 MHz
Emission Designator	9M0F9W

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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