



Subject: Application for Class II Permissive Change, under  
FCC ID: AS5ONEBTS-27, Both to Add the 15 MHz  
Emission Designator and to Document MIMO Limitation  
Exception for the RRH 2x60-1900 Model.

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**January 16, 2015**

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

**Dear Mr. Sanders:**

FCC ID: AS5ONEBTS-27 covers two separate Alcatel-Lucent products (1) RRH 2x60-1900 and (2) RRH 2x60-1900A. Both are dual technology, WCDMA and LTE, Remote Radio Heads (RRH), and both have the same (a) frequency determining and stabilization circuitry, and (b) transmit power rating 60 W (47.78 dBm) at each of the two Tx antenna terminals. They differ primarily by the manufacturer of their respective power amplifiers.

The purpose and objective of this application for a Class II Permissive Change, under FCC ID: AS5ONEBTS-27, is to add the LTE 15 MHz emission bandwidth and designator to the original RRH2x60-1900 model. However, in accordance with Rule Part 24.238 (b), certain out-of-band emissions exceed the 2x2 MIMO limitation by  $\leq 0.5$  dB. Since this model has been deployed, since the original Grant dated 3/30/12, the FCC has agreed to accept this permissive change without explicit compliance to the KDB pub 662911 D01 v02r01 *Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)*. The FCC response is per Tracking Number 701143.

Three LTE (Long Term Evolution) modulation schemes are supported: 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 24 — Personal Communications Services, § 24.238 Emission Limitations for Broadband PCS Equipment, 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:

Class II Permissive Change: Adds the LTE 15 MHz emission bandwidth and designator to the RRH2x60-1900 model.

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, need not be repeated. All initial exhibits that were granted permanent confidentiality, and are unchanged, must continue to remain confidential; these also need 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	AS5ONEBTS-27
Rules Part Number	Part 24 — Personal Communications Services, § 24.238 Emission Limitations for Broadband PCS Equipment
Frequency Ranges	Transmit 1930 – 1990 MHz
Output Power	60 Watts (+47.8 dBm) at each Tx Antenna Terminal
Frequency Tolerance	± 0.05 ppm
Emission Bandwidth	15 MHz
Emission Designator	13M4F9W

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.  
Table of Contents

**TABLE OF CONTENTS**

01-Exhibit 1:	731 Form
02-Cover Letter	
03-Req_Confidentiality	
04-Exhibit 2:	FCC ID Label Sample and Location Information (Part 2.1033(c) (11); Part 2.925 (a) (1))
05-Exhibit 3:	FCC Required Information (Part 2.1033)
06-Exhibit 4A:	External Photographs of the Equipment (Part 2.1033 (c)(12))
07-Exhibit 4B:	Internal Photographs of the Equipment (Part 2.1033 (c)(12))
08-Exhibit 5:	Test Set Up Photographs
09-Exhibit 6:	Operational Description
10-Exhibit 7:	Block Diagrams (Confidential)
11-Exhibit 8:	Schematic Diagrams (Confidential)
12-Exhibit 9:	Test Report
13-Exhibit 10:	User Manual
14-Exhibit 11:	Tuning Procedure, if Applicable