



Alcatel-Lucent USA
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PO Box 636
Murray Hill, NJ 07974

Timco Engineering Inc. Telecommunication Certification Bodies
849 NW State Road 45
Newberry, Florida 32669

July 25, 2016

Dear Examiner:

The purpose and objective of this application for a Class II Permissive Change, under FCC ID: AS5ONEBTS-27, is to add 5+5 and 10+5 MHz Configurations to the RRH2x60-1900 filing, which is both LTE operational and 2x60 MIMO compliant. The spectrum covered is Rule Part 24E, 1930 – 1990 MHz. The current product, designated on the equipment label as RRH2x60-1900, incorporates the same radio, the same power amplifier, and the same digital (D/A) circuitry. There is no change to the radio frequency determining and stabilization circuitry. The only change is to the controlling software.

In accordance with Rule Part 24.238 (b), certain out-of-band emissions exceed the 2x2 MIMO limitation by ≤ 2.55 dB. Since this model has been deployed, and 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 under Tracking Number 928292.

The LTE MIMO requirements are specified in *OET Bulletin 662911 D011 Multiple Transmitter Output v02r01*. The long term average power rating at each of the two transmit antenna terminals is 60 W (47.8 dBm) and a total composite power combined in the air interface of 120 W (50.8 dBm). 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: 5+5 and 10+5 MHz Configurations to the RRH2x60-1900 and is both LTE operational and 2x60 MIMO compliant.

In accordance with Sec. 2.1043 Changes in Certificated Equipment, only the characteristics affected by the changes 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 resubmitted. All initial exhibits that were granted permanent confidentiality and are unchanged, 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.

Manufacturer	Alcatel-Lucent, Inc.
Equipment Identification	AS5ONEBTS-27
Rules Part Number	Part 24 – Personal Communication Services, §24.238 Emission limitations for Broadband PCS Equipment
Frequency Range	1930 to 1990 MHz
Output Power	60Watts (47.8 dBm) at each TX Antenna Terminal
Frequency Tolerance	+/- 0.05 ppm

Enclosed in this application package are the FCC Application Form 731, Table of Contents, and the required exhibits. These exhibits contain the technical data and the required statements and documents for the Class II Permissive change. The technical contact at Alcatel-Lucent will comply with any request for additional information should the need arise.

The fees are submitted as required for radio equipment certification filing.

Sincerely,

A handwritten signature in cursive script, reading "Raymond J. Johnson".

R.J. Johnson
Technical Manager
FCC Compliance Test Group