



**Timco Engineering Inc.
FCC Authorized Telecommunications
Certification Body (TCB)**

Alcatel-Lucent USA Inc.
Building 5B-111
600 Mountain Avenue
Murray Hill, NJ 07974

November 30, 2016

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

Dear Mr. Sanders

The Alcatel-Lucent **PCS LTE Remote Radio Head 4x30 Band 25** Transceiver System (**RRH 4x30 B25**) is the subject of this request for a Class II Permissive Change to the FCC Product Certification under **FCC ID: AS5BBTRX-22**. Alcatel-Lucent USA Inc., part of the Nokia family of companies, hereby requests this Class II change to add 5 MHz 2x60W MIMO capability to the Grant. The emissions designators remain as previously filed supporting operation under the 3GPP2 Long Term Evolution (LTE) communication standard. The output power rating, hardware design and operational modes are unchanged from that previously reported to the FCC under **FCC ID: AS5BBTRX-22**

The **PCS LTE RRH 4x30 Band 25** is a 65 MHz instantaneous bandwidth LTE Transceiver with a maximum total power for all ports equal to 120 Watts. Operational modes is unchanged as the product can operate as either a 2x60W or a 4x30W MIMO transceiver. The product is authorized for the nominal 5, 10, 15 and 20 MHz bandwidth LTE Emissions designators for PCS Blocks A through G (1930-1995 MHz).

This application for **RRH 4x30 B25** demonstrates 2x60W carrier operation using the 5M00F9W Emissions designator in the Broadband PCS spectrum for PCS Blocks A through G (1930-1995 MHz). The power per port and the total output power is unchanged. The measurement exhibits attached to this application demonstrate full compliance with FCC Part 24 Subpart E Broadband PCS following the procedural requirements specified in FCC Part 2 Subpart J – Equipment Authorization Procedures. The data, summarized below, is in the form presently used by the Commission's Radio Equipment List. All of the information, except the Grant Notes, is unchanged.

Equipment Identification:	AS5BBTRX-22
Rules Part Number:	Part 24 SubPart E – Broadband PCS
Frequency Range:	Transmit 1930-1995 MHz (PCS Blocks A-D-B-E-F-C & G)
Output Power:	0-60W per LTE Carrier, 120W per unit for the 2x60W configuration
Frequency Tolerance:	± 0.05 ppm
Emission Designator:	5M00F9W
New Grant Notes:	Class II Permissive Change: Addition of Single 5 MHz LTE Carrier for 2x60 MIMO

Attached are the FCC Form 731 (Application for Equipment Authorization – Radio Frequency Devices), the required measurement data and exhibits specific to this request for Class II change authorization of the **PCS LTE RRH 4x30 Band 25**. The technical or non-technical contact at Alcatel-Lucent will comply with any request for additional information should the need arise. The attached exhibits with the applicable FCC Rule section are assembled and presented in accordance with the *Table of Contents* attachment. Included is a formal letter requesting continued confidentiality for the previously identified confidential exhibits:

Should there be any questions or procedural issues please feel free to contact me by email and/or phone.

Sincerely,

A handwritten signature in blue ink that reads "Raymond J. Johnson".

Raymond J. Johnson
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Att. Table of Contents for the **PCS LTE RRH 4x30 Band 25 Outdoor Transceiver System** Product Certification Report

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Cover Letter

<u>Exhibit #</u>	<u>FCC Rule Number</u>	<u>Description</u>
Exhibit 1	Section 2.1033(a)	FCC Form 731
Exhibit 2	Section 2.911 (d)	Attestation Qualifications and Certifications
Exhibit 3	Section 2.1033(c) (10, 13)	Photographs of the Test Setups
Exhibit 4	Section 2.1033(c) (14)	Test Report