

QUALIFICATIONS AND CERTIFICATIONS
SECTION 2.911(d)

September 30, 2011

SECTION 2.911(d) QUALIFICATION OF ENGINEER (who performed or supervised the Tests).

Dheena D. Moongilan is a Distinguished Member of Technical Staff, Alcatel-Lucent. He received his BSEE, and MSEE from Madras University, India and another MSEE from Illinois Institute of Technology, Chicago, Illinois. He was trained in FCC testing procedures by his former Supervisor, Donald N. Heirman. He has 29 years of EMC testing experience. He is a NARTE certified EMC Engineer, certificate #EMC-00/1022-NE.

SECTION 2.911(d) CERTIFICATION OF TECHNICAL TEST DATA

I hereby certify that the technical test data are the results of tests performed or supervised by me.

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MANUFACTURERS – IDENTIFIER
SECTION 2.1033 (c) 1 and 2

MANUFACTURERS IDENTIFIER

SECTION 2.1033(c) 1

The full name and mailing address of the manufacturer of the device and the applicant for certification:

RESPONSE:

**APPLICATION: Alcatel-Lucent
600-700 Mountain Avenue
Murray Hill, NJ 07974
Attention: Rudolf J Pillmeier**

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FCC Identifier:

RESPONSE: LTE TRDU 2x60-7L (BC12/17) is a "LTE Transceiver -48VDC" to be operated under in Domestic "Miscellaneous Wireless Communication Services (WCS)" Part 27 of the FCC Rules.

**FCC Identifier: AS5
FCC ID: AS5BBTRX-09**

**EMISSIONS, FREQUENCY RANGE,
POWER LEVEL**
SECTION 2.1033 (c) (4), (5), (6) and (7)

EMISSIONS, FREQUENCY RANGE, POWER LEVEL

SECTION 2.1033(c) (4)

Type or types of emission:

RESPONSE:

The “LTE TRDU 2x60-7L (BC12/17) (LTE Domestic “Miscellaneous Wireless Communication Services (WCS)” Transceiver -48VDC)” capable of amplifying transmission involving the following types of emissions:

Measured Emission type:

9M44F9W for 10MHz BW and 4M74F9W for 5 MHz BW

SECTION 2.1033(c) (5)

Frequency Range

RESPONSE:

The list of band, channels, RF filters (EAC) and Amplifiers tested are listed below:

FCC Rules	Frequency Range per FCC (MHz)	Frequency Range Used (MHz)	Power (Watts)
27.5 (C) 1	728-746	729-745	60

The list of band, channels, and Output power tested are listed below:

Block	Center Frequency (MHz)	Carrier Bandwidth (MHz)	Power (Watts)
A	731.5	5	60
B	737	5	60
C	742.5	5	60
A+B	734.5	10	60
B+C	739.5	10	60

SECTION 2.1033(c) (6)

Range of operating power values or specific operating power levels, and description of any means provided for variation of operating power.

RESPONSE:

The “LTE TRDU 2x60-7L (BC12/17)” is capable of operating from 0.002 to 60 watts. The output power is measured at the External Antenna Connection (EAC) output connector of the 9412 eNodeB Compact

(700 MHz) cabinet in which “**LTE TRDU 2x60-7L (BC12/17)**” is mounted. The power is under continuous software control. The short term peak power due to channel activity fluctuations is 60W +0.3/-1dB.

SECTION 2.1033(c) (7)

Maximum power rating as defined in the applicable part(s) of the rules.

RESPONSE:

The maximum average power output of the “**LTE TRDU 2x60-7L (BC12/17)**” at **9412 eNodeB Compact Cabinet External Antenna (EAC)** port is 2x60 watts (MIMO). The radio transmitter is operated under 47 CFR 27. There were 3x2 External antenna port (EAC) ports and the ports were randomly selected and configured for all antenna port conducted tests.