

QUALIFICATIONS AND CERTIFICATIONS
SECTION 2.911(d)

July 5, 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 IC and FCC testing procedures by his former Supervisor, Donald N. Heirman. He has 26 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.

Dheena Moongilan
Distinguished Member of Technical Staff
Global Product Compliance Laboratory
MH 5A-115, Alcatel-Lucent
600, Mountain Avenue
Murray Hill, NJ 07974-0636
Tel: 908 582 5539

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

SECTION 2.1033(c) 2

FCC Identifier:

RESPONSE: LTE “9442 RRH2X40-AWS” to be operated under Part 27 of the FCC Rules.

FCC Identifier: **AS5**
FCC ID: **AS5BBTRX-02**

**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 “9442 RRH2X40-AWS and 9442 RRH2X40-AWS R4X” capable of amplifying transmission involving the following types of emissions:

Measured Emission type:

9M43F9W for 10 MHz Bandwidth (originally certified).

4M71F9W for 5 MHz Bandwidth (originally certified)

18M93F9W for 20 MHz Bandwidth

SECTION 2.1033(c) (5)

Frequency Range

RESPONSE:

FCC 27.5 h (1) and (2)

| Block | Transmit Frequency Range MHz | Bandwidth MHz |
|--------------|-------------------------------------|----------------------|
| A +B | 2110-2130 | 20 |
| B+C+D | 2120-2140 | 20 |
| D+E+F | 2135-2155 | 20 |

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 “9442 RRH2X40-AWS and 9442 RRH2X40-AWS R4X” is capable of operating from 0.002 to 40 watts. The output power is measured at the External Antenna Connection (EAC) output connector of the “9442 RRH2X40-AWS and 9442 RRH2X40-AWS R4X” cabinet. The power is under continuous software control. The short term peak power due to channel activity fluctuations is 40W +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 “**9442 RRH2X40-AWS and 9442 RRH2X40-AWS R4X**” cabinet EAC port is 2x40 watts (MIMO). The radio transmitter is operated under 47 CFR 27. There were 2 External antenna port (EAC) transceiver ports and the ports were randomly selected for all antenna port conducted tests. There are additional two receive port that is available in **9442 RRH2X40-AWS R4X only**.