



Gemalto M2M GmbH • Siemensdamm 50 • 13629 Berlin • Germany

Federal Communication Commission
Equipment Authorization Division, Application
Processing Branch
7435 Oakland Mills Road
Columbia, MD 21048

Name Thorsten Liebig
Department Manager Approval

Phone +49 30 31102-8241
Fax +49 30 31102-8305
E-Mail Thorsten.liebig@cinterion.com

Your letter of
Our reference
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Tune-up Procedure of Cinterion Wireless Module ELS31-V FCC ID: QIPELS31-V

LTE Mode:

During manufacturing each module will be individually calibrated. The measurement is done in a fully calibrated setup, which is based on a Rohde&Schwarz CMW 500 base station simulator (system tester). The highest power level is verified in a service mode on one channel per band.

Procedure:

1. Set the module to operational voltage and on one certain channel in a special service mode by means of company proprietary software.
2. The actual power is measured at several power levels.
3. The gain factors of each individual module are adjusted until the target value is met. The appropriate gain control settings are stored in each module individually (for each power level). The user has no possibility to change these settings later on.
4. The RMS TX target output power and the tolerances see following table:

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Registered Office:
Gemalto M2M GmbH
St.-Martin-Str. 60
81541 Munich
Germany

Managing Directors:
Norbert Muhrer, Sébastien Gallois

Commercial register, Reg. No.:
Amtsgericht München, HRB 172715
WEEE-Reg.-Nr. DE 58893809



Band	RMS Target	Tolerance
LTE 4 QPSK, #RB=1	23dBm	-1/ +0.5dB
LTE 13 QPSK, #RB=1	23dBm	-1/ +0.5dB
LTE 4 16QAM, #RB=1	22dBm	-1/ +0.5dB
LTE 13 16QAM, #RB=1	22dBm	-1/ +0.5dB

Sincerely yours,

Thorsten Liebig
Manager Approvals

Dr. Jörg Rook
Head of System Test