

Antenna Kitting for LTE/UMTS/GSM Compensator

Originator: Khaled Bathich
Approver: Raimo Jacobi
Location: Dabendorf, Germany

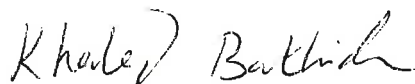
Change History

Version	Date	Status	Handled by	Comments
0.1	19-Dec-16	draft	Khaled Bathich	
1.0	20-Jan-17	review	Raimo Jacobi	
2.0	24-Feb-17	release	Khaled Bathich	

To whom it may concern:

The antenna kitting options were done for 9 mobile outside car antennas that can be used with the LTE/UMTS/GSM Compensator. Inside antenna options are not applicable for the Compensator.

Yours sincerely,



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List of operational frequency bands supported by the Laird LTE/UMTS/GSM Compensator:

Operational Frequency Band	Uplink Frequency Range (MHz)
12	698-716
13	777-787
5	824-849
4	1710-1755
2	1850-1910

Final output power limited to 30 dBm (EIRP) in all operational uplink frequency bands:

Operational Frequency Band	12	13	5	4	2
Max. Conducted Uplink Output Power (dBm)	22.70	22.20	28.40	21.50	28.00

List of fixed outside antenna kit options:

1. E-Call Antenna (4M0.035.504)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	2.00	2.00	2.00	2.00	2.00
Min. Cable Loss (dB)	0.53	0.53	0.57	0.87	0.87
Max. EIRP Uplink Output Power (dBm)	24.17	23.67	29.83	22.63	29.13

2. Bumper Antenna (4M0.035.507)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	2.00	2.00	2.00	2.00	2.00
Min. Cable Loss (dB)	0.53	0.53	0.57	0.87	0.87
Max. EIRP Uplink Output Power (dBm)	24.17	23.67	29.83	22.63	29.13

3. Shark-Fin Antenna (3C0.035.507.N)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	1.70	1.70	1.70	2.50	2.50
Min. Cable Loss (dB)	1.06	1.06	1.14	1.74	1.74
Max. EIRP Uplink Output Power (dBm)	23.34	22.84	28.96	22.26	28.76

4. Rear Windshield Antenna (3G5.035.534)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	-2.00	-2.00	-2.00	-0.60	-0.60
Min. Cable Loss (dB)	0.53	0.53	0.57	0.87	0.87
Max. EIRP Uplink Output Power (dBm)	20.17	19.67	25.83	20.03	26.53

5. Shark-Fin Antenna (5Q0.035.507.Q)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	0.50	0.50	0.50	3.40	3.40
Min. Cable Loss (dB)	1.06	1.06	1.14	1.74	1.74
Max. EIRP Uplink Output Power (dBm)	22.14	21.64	27.76	23.16	29.66

6. Shark-Fin Antenna (5Q0.035.507.S)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	1.40	1.40	1.40	2.50	2.50
Min. Cable Loss (dB)	1.06	1.06	1.14	1.74	1.74
Max. EIRP Uplink Output Power (dBm)	23.04	22.54	28.66	22.26	28.76

7. Shark-Fin Antenna (6R0.035.501.L)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	-1.80	-1.80	-1.80	2.80	2.80
Min. Cable Loss (dB)	1.06	1.06	1.14	1.74	1.74
Max. EIRP Uplink Output Power (dBm)	19.84	19.34	25.46	22.56	29.06

8. Rear Crossbar Antenna (3G9.035.534)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	0.00	0.00	0.00	-3.50	-3.50
Min. Cable Loss (dB)	0.53	0.53	0.57	0.87	0.87
Max. EIRP Uplink Output Power (dBm)	22.17	21.67	27.83	17.13	23.63

9. Film Antenna (971.035.510.C, 982.035.510.B)

Operational Frequency Band	12	13	5	4	2
Antenna Gain (dBi)	-2.94	-2.94	-2.94	-2.94	-2.94
Min. Cable Loss (dB)	0.53	0.53	0.57	0.87	0.87
Max. EIRP Uplink Output Power (dBm)	19.23	18.73	24.89	17.69	24.19