

Programmable LTE Antenna for Tablets

Applications

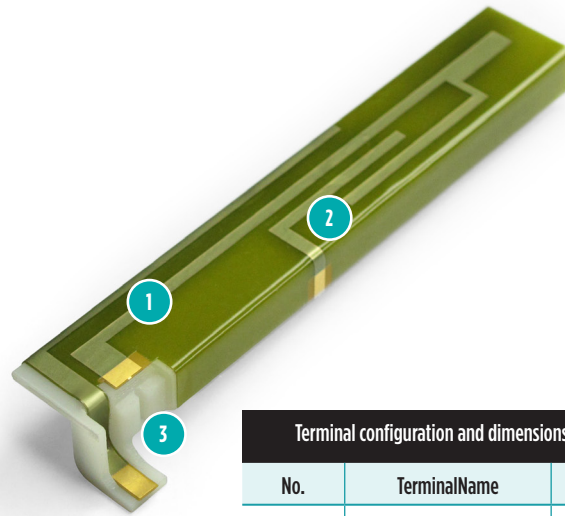
- LTE-enabled tablets

Features

- Size 65 x 12 x 1 mm
- Frequencies:
 - Selective Low Band: LTE band (EUTRA) 13 and 17, GSM 850, GSM 900
 - High Band: GSM1800/1900,WCDMA I
- Switch: Sony SP4T

Benefits

- Low profile
- High performance
- Low losses in all states
- Minimal effect of switching on high bands
- Easily assembled to device display or covers of various sizes
- Planar pattern offers the setup for improving SAR
- Compatible with metal tablet holders
- Applicable to well-known manufacturing technologies (LDS, Flex and Sheet Metal)



Terminal configuration and dimensions of the antenna

No.	TerminalName	Terminal Dimensions
1	Feed	1.5 x 2 mm
2	Ground	3 x 2 mm
3	Switch Contact	3 x 2 mm

Electrical specifications @ +25 °C

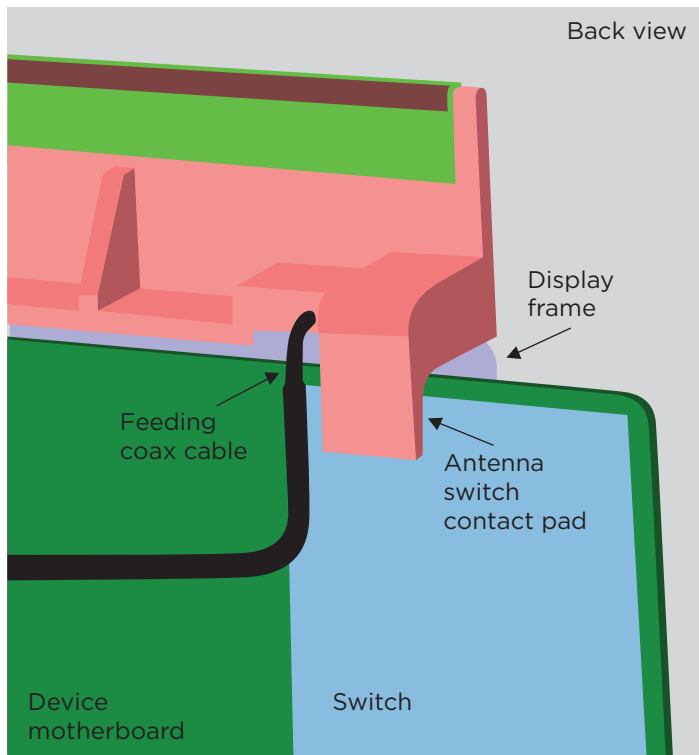
Note: Electrical characteristics depend from distance of metal objects and the location of the antenna on the device

Typical performance (Ground plane size 233x140 mm)

Frequency Range [MHz]	Efficiency [%] / [dB]	Return loss min [dB]	Impedance [Ω]	Operating Temperature [°C]
700-750	≥ 40/-4 63/-2 (peak)	-6	50	-40 to +85
750-790	≥ 40/-4 56/-2.5 (peak)	-6	50	-40 to +85
820-900	≥ 40/-4 50/-3 (peak)	-6	50	-40 to +85
880-960	≥ 40/-4 50/-3 (peak)	-6	50	-40 to +85
1710-1880	≥ 40/-4 60/-2.2 (peak)	-6	50	-40 to +85
1850-1990	≥ 40/-4 53/-2.7 (peak)	-6	50	-40 to +85
1920-2170	≥ 40/-4 64/-1.9 (peak)	-6	50	-40 to +85

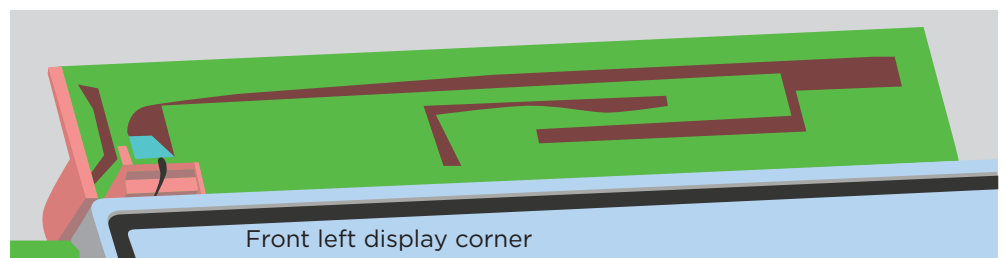
Mounting of the antenna

1. Recommend mounting of antenna: To the display frame, or to the device front cover; position: near the ground plane corner.
2. Adhesive surface to attach to the display, or to the device front cover
3. Recommend placing the RF Switch as close as possible to the antenna switch contact



One possible setup solution

Antenna attached to the display frame at front left corner; Feed contact by coax cable from the motherboard near the corner; switch on the motherboard, next to the antenna switch contact. Ground pad can be contacted to the display by conductive tape or clip.



For More Information

Pulse Antennas Europe

Finland, Kempele
Tel. +358 207 935 500

antennasales.europe@pulseelectronics.com

Pulse Antennas USA

San Diego, CA
Tel. +1 858 674 8100

antennasales.us@pulseelectronics.com

Pulse Antennas Asia

China, Suzhou
Tel. +86 512 6807 9998

China, Beijing
Tel. Tel: +86 010 8599 9991

Korea, Suwon
Tel. +82 31 213 2001

Taiwan, Zhongli
Tel. +886-3-4356768

antennasales.asia-pacific@pulseelectronics.com

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