

4G/LTE Vertical-Mount Antenna



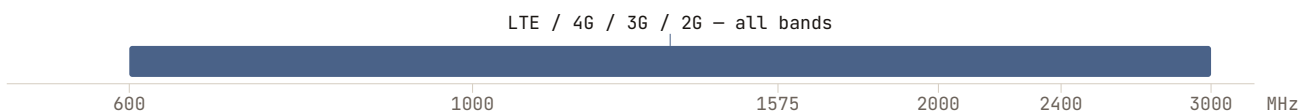
Wavelet_4G_VM_13.5_30_V00

Full 600 to 3000 MHz global cellular coverage from a part that solders straight onto the system PCB — no coaxial cable, no I-PEX connector, and no assembly step to place one. Removing the cable assembly is what makes this the low-cost option in the range, and it removes the most common field failure with it.



FREQUENCY	PEAK GAIN	FOOTPRINT	INTERFACE
600–3000 MHz	>2 dBi	30 × 13.5 mm	Solder feed pad

FREQUENCY COVERAGE



The same continuous global cellular band as the cabled parts in the range, so moving a design to vertical mount is a mechanical and cost decision rather than a coverage one. Silkscreen reads LTE/4G/2G/3G and Feed.

ELECTRICAL SPECIFICATIONS

Frequency range 600 – 3000 MHz

Peak gain > 2 dBi

VSWR < 2 : 1

Return loss < -10 dB

Nominal impedance 50 Ω

Polarisation Linear, vertical

Radiation pattern Omnidirectional in the horizontal plane

Operating temperature -40 °C to +85 °C

MECHANICAL AND INTERFACE

Dimensions (L × W × H) 30.0 × 13.5 × 1.0 mm

Construction Printed circuit antenna, FR-4 substrate

Mounting Vertical — solders directly onto the system PCB, standing perpendicular to it

Interface Solder feed pad and ground pad. No cable and no connector are fitted or required

Orientation Feed pad marked Feed on the silkscreen

ASSEMBLY AND CLEARANCE

Because the element stands vertically off the host board, the keep-out is a volume rather than an area: allow clearance above the part for its full height and keep the enclosure lid, metal shields and cable looms out of that space. The feed and ground pads are marked on the silkscreen and the part is polarity-sensitive in the sense that reversing it detunes the match — check orientation on the first assembly rather than on the first production run. Confirm process compatibility with your assembler before committing to reflow.

APPLICATIONS

- Network devices, gateways and routers
- Remote monitoring and CCTV cameras
- Point-of-sale terminals
- Digital signage
- Asset tracking
- Smart meters — water and electricity
- IoT devices
- eHealth equipment
- Modules and sensors

RELATED PARTS

Wavelet_4G_15_40_00 Cabled equivalent on I-PEX MHF I, where the antenna has to sit away from the main board

Wavelet_4G_25.5_54_00 The full-size cabled part, for designs with the board area to spend

CONTACT

Quote this part number when enquiring. Samples, volume pricing and lead times are issued per enquiry; an RF engineer answers technical questions directly.

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Specification notice. Performance of any embedded antenna depends on the host PCB, the ground plane it is matched against, enclosure materials and nearby metal. The figures in this document are measured under the test conditions stated in section 6 and should be verified in your own design. Wavelet reserves the right to change specifications without notice. Data is believed to be accurate at the time of release and is provided for design guidance only; it does not constitute a warranty.