

ANT-433-HESM

✓ ACTIVE

TE Internal #: ANT-433-HESM
Helical Antenna, Single Band, LPWAN / LoRaWAN, Internal /Embedded Mount, Surface Mount, Solder, Omnidirectional, Single Port, 0 < 3 dBi Peak Gain
[View on TE.com >](#)



Antennas



Communication Protocol: **LoRaWAN, LPWAN**
Mounting Location: **Internal/Embedded**
Mounting Type: **Surface Mount**
Frequency Category: **410 – 470**
Antenna Type: **Helical**

Features

Product Type Features

Antenna Termination	Solder
Antenna Product Type	Antenna

Configuration Features

Antenna Style	Helical
Mounting Location	Internal/Embedded
Antenna Type	Helical
Band Type	Single Band
Port Configuration	Single Port

Electrical Characteristics

Impedance	50 Ω
VSWR (Max)	<2.1:1

Signal Characteristics

Frequency Band	433 MHz
Gain (Max)	1.9 dB
Frequency Category	410 – 470
Peak Gain	0 < 3 dBi

Body Features

Antenna Weight	3.3 g[.116 oz]
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Mechanical Attachment

Polarization	Linear
Mounting Type	Surface Mount

Dimensions

Product Width	8.9 mm[.35 in]
Product Length	38.1 mm[1.5 in]
Product Height	0 mm[0 in]

Operation/Application

Directionality	Omnidirectional
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Industry Standards

Communication Protocol	LoRaWAN, LPWAN
Primary Application	LoRaWAN, LPWAN

Product Compliance

For compliance documentation, visit the product page on TE.com>

EU RoHS Directive 2011/65/EU	Compliant
EU ELV Directive 2000/53/EC	Compliant
China RoHS 2 Directive MIIT Order No 32, 2016	有害物质含量符合标准要求 No Restricted Substance(s) Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2025 (250) Candidate List Declared Against: JUNE 2023 (235) Does not contain REACH SVHC
Halogen Content	Low Halogen - Br, Cl, F < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
Solder Process Capability	Not reviewed for solder process capability

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulations, TE’s information on SVHC in articles for this part number is still based on the European Chemical Agency (ECHA) ‘Guidance on requirements for



substances in articles’(Version: 2, April 2011), applying the 0.1% weight on weight concentration threshold at the finished product level. TE is aware of the European Court of Justice ruling of September 10th, 2015 also known as O5A (Once An Article Always An Article) stating that, in case of ‘complex object’, the threshold for a SVHC must be applied to both the product as a whole and simultaneously to each of the articles forming part of its composition. TE has evaluated this ruling based on the new ECHA “Guidance on requirements for substances in articles” (June 2017, version 4.0) and will be updating its statements accordingly.

Compatible Parts



TE Part # ANT-433-HETH
Antenna 1/4 Wave Coil 433MHz THM



TE Part # ANT-433-PW-LP
Antenna 1/4 Wave 433MHz Screw #6



TE Part # ANT-433-PW-RA
Antenna 1/4 Wave 433MHz Swivel Screw #6

Customers Also Bought



TE Part #ANT-433-HETH
Antenna 1/4 Wave Coil 433MHz THM



TE Part #ANT-315-HESM
Antenna 1/4 Wave Coil 315MHz SMT



TE Part #ANT-418-HESM
Antenna 1/4 Wave Coil 418MHz SMT



TE Part #ANT-868-HESM
Antenna 1/4 Wave Coil 868MHz SMT



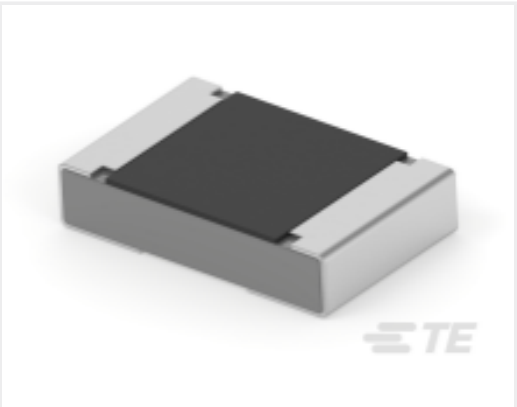
TE Part #ANT-433-USP410
Antenna uSP PCB RPC 410 433MHz SMT T&R



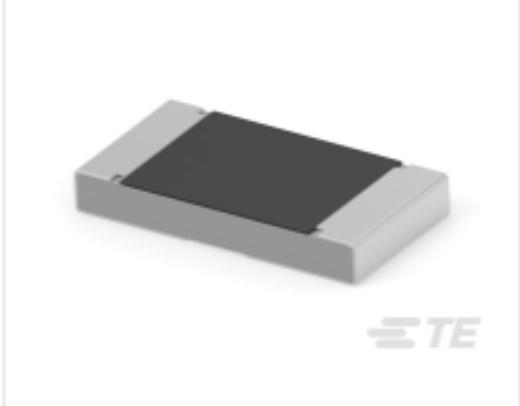
TE Part #1462041-7
IMB03CGR=IM RELAY 140mW 5V HDV



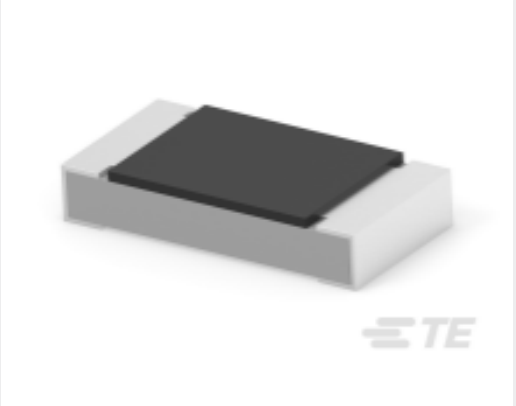
TE Part #1513504-1
100930LF MOLDED STAMPED ANTENNA



TE Part #6-2176476-7
RA73F 2A 249R 0.1% 1K RL



TE Part #9-2176527-3
3503G 2B 4K99 1% 5K RL



TE Part #4-2176581-1
RLC73PW 2B R147 1% 5K RL

Documents

Product Drawings



Antenna 1/4 Wave Coil 433MHz SMT

English

CAD Files

3D PDF

3D

Customer View Model

ENG_CVM_CVM_ANT-433-HESM_B.3d_stp.zip

English

Customer View Model

ENG_CVM_CVM_ANT-433-HESM_B.3d_igs.zip

English

Customer View Model

ENG_CVM_CVM_ANT-433-HESM_B.2d_dxf.zip

English

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

Datasheets & Catalog Pages

ANT-433-HESM

English