

KGEA-IA

Keyless go emitter interior antenna 75x58x12.6mm (33 uH - 500 uH)

Features

The LF Interior antenna is designed for emission of a LF field to allow hands free access towards the Customer Device Identification for automotive application. The LF Interior antenna inserted inside the vehicle and being integrated into the Access and Start Hand Free subsystem for Passive Entry keyless Go System Requirements.

Overmoulded with PA66 (ABS optional) assuring the IP67 classification. Inside the overmoulding the serial inductance, capacitance and resistance can be customized to required values.

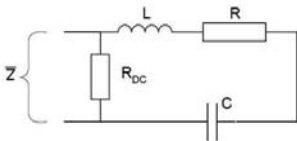
Designed to allow long emitting-reading distances in the smallest volume (low profile). Variety of mounting requirements and solutions which to incorporate features to accommodate different fastening anchors and integrated shapes of connectors.



Characteristics

- LF transponder Transmitter antenna LF Low Profile.
- High stability in temperature (-40°C up to +85°C)
- Ideally used in keyless smart entry system.
- Connector integrated in the enclosure located laterally.
- The enclosure will provide mounting features into the vehicle and will ensure the mechanical robustness
- Low tolerances in the resonance frequency LC
- Long reading distances and average current 2-4App
- Strong anchor points which provide an easy assembly
- Custom LCR value under demand

Electrical diagram

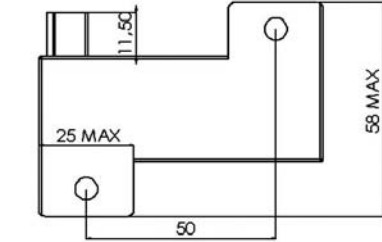


- L: Ferrite core coil inductance
- R: Copper resistance and connection
- C: Tuning internal capacitor NPO
- Rdc: Diagnostic parallel resistor (typical 10 kΩ)
- Z: External impedance

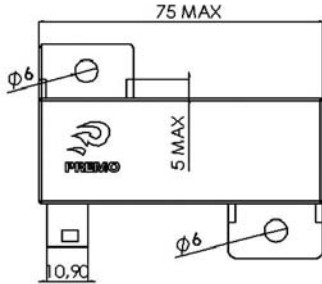
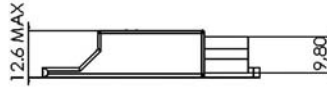
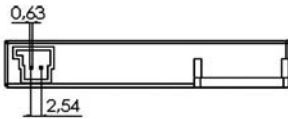
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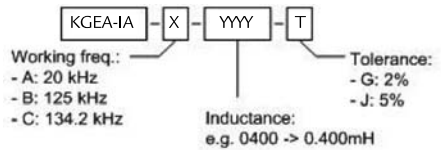
Mechanical dimensions



All dimensions are in mm



Nomenclature description



Electrical specifications

Operating Frequency@125kHz

| P/N | L (mH) | Cres (nF) | Q | SRF (MHz) |
|-----------------|--------|-----------|------|-----------|
| KGEA-IA-B-0033J | 0.033 | 47,00 | >60 | >3 |
| KGEA-IA-B-0108J | 0.108 | 15,00 | >90 | >3 |
| KGEA-IA-B-0162J | 0.162 | 10,00 | >100 | >3 |
| KGEA-IA-B-0240J | 0.240 | 6,8 | >100 | >3 |
| KGEA-IA-B-0345J | 0.345 | 4,7 | >100 | >3 |
| KGEA-IA-B-0500J | 0.500 | 3.3 | >100 | >3 |

Operating Frequency@134,2kHz

| P/N | L (mH) | Cres (nF) | Q | SRF (MHz) |
|-----------------|--------|-----------|------|-----------|
| KGEA-IA-C-0030J | 0.030 | 47,00 | >75 | >3 |
| KGEA-IA-C-0094J | 0.094 | 15,00 | >110 | >3 |
| KGEA-IA-C-0141J | 0.141 | 10,00 | >125 | >3 |
| KGEA-IA-C-0207J | 0.207 | 6,8 | >125 | >3 |
| KGEA-IA-C-0300J | 0.300 | 4,7 | >125 | >3 |
| KGEA-IA-C-0426J | 0.426 | 3,3 | >125 | >3 |

Operating Frequency@20kHz

| P/N | L (mH) | Cres (nF) | Q | SRF (MHz) |
|-----------------|--------|-----------|-----|-----------|
| KGEA-IA-A-0161J | 0.161 | 330 | >50 | >3 |
| KGEA-IA-A-0345J | 0.345 | 184 | >55 | >3 |
| KGEA-IA-A-0500J | 0.500 | 127 | >60 | >3 |

Add under the chart: This chart is a reference guide for the most common required values at working frequency of 125 kHz. Any other inductance value at LF or tighter tolerances can be provided. Please contact our sales department for any inquiry. Sensitivity measured with Helmholtz coils H=8.36 App/m @125 kHz. Contact us for measurement specification.