

KGEA-MRHPM  
(Integrated connector)

Middle Range Antenna LF for smart entry system.  
EMITTER ANTENNAS & SWITCHES / MIDDLE RANGE



FEATURES

The middle range antenna have been designed in order to reduce the number of antennas respect to the total number short antennas with equal or better performance reading distance and H-field around the whole vehicle.

01 CHARACTERISTICS

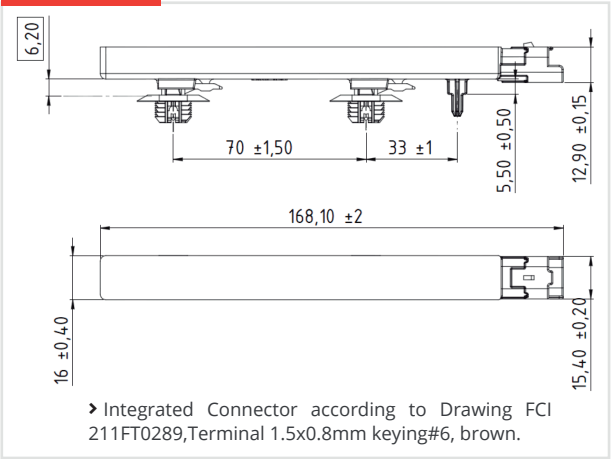
Depending on the requirements and location of the antennas in the vehicle and taking into account its exposure to environmental conditions, grade IP waterproof, mechanical robustness, etc.. PREMO offers from LPM technology, to Polyurethane, mixed LPM-resin and HPM.

New Middle Range Antenna with High Pressure Technology (HPM)

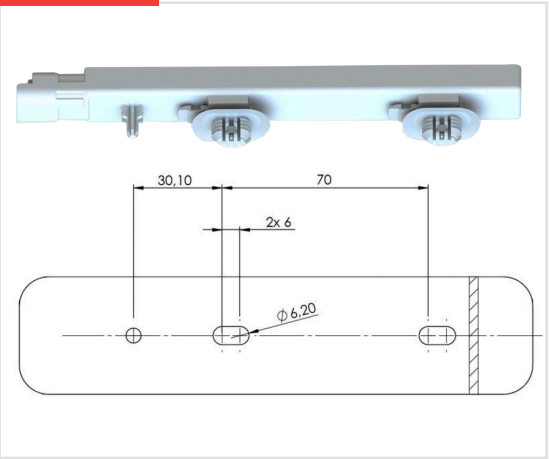
- › Cover 100% of Ferrite-Coil Inductance.
- › Designed to allow long reading distances
- › High mechanical robustness
- › High stability in temperature
- › IP 68 grade Waterproof
- › Middle antenna (length until 200mm).
- › Shape flat Material PBT-GF30%
- › Anchor point (Clips and pivot).
- › Resonant frequency adjusting below +/- 2kHz.
- › Custom L-C value (F-Res: KGEA-MRHPM) under demand
- › This antenna is designed based on AECQ-200.

02 SPECIFICATIONS

DIMENSIONS (mm)



RECOMMENDED LANDPATTERN FOR TRW30413438

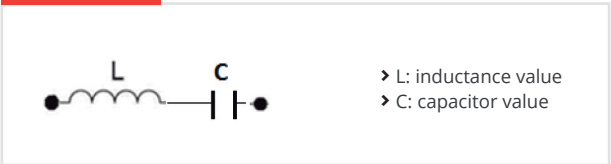


ELECTRICAL SPECIFICATIONS

	L(mH)	Cres (nF)	Q(L+C)	Rac (Ω)	Arms	H-Field (dBμV/m) @2App@1m	Freq (kHz)	Height (mm)	Length
KGEA-MRHPM-B-0175J	0.175	10	>140	>2	1A	140	120	12.9	168.10
KGEA-MRHPM-B-0162J	0.162	10	>140	>2	1A	140	125	12.9	168.10

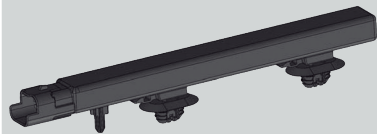
› Antenna is measured in resonant mode.

SCHEMATIC DIAGRAM



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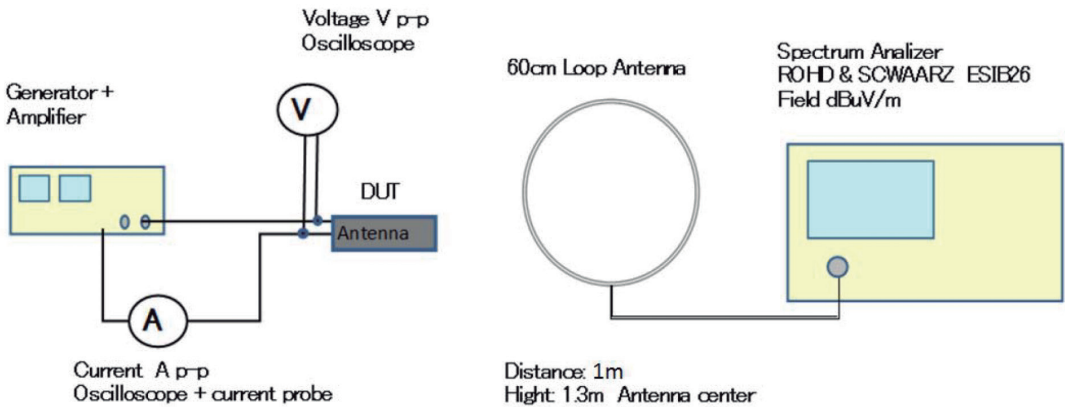


FUNCTIONAL PERFORMANCES. ( H-FIELD MAGNETIC )

PROCEDURE

- › Magnetic field probe measures in load  $I_{pp}=2A_{pp}$  to 1meter @ $f_0=120kHz$ .
- › Receiving the signal from the probe field with the spectrum analyzer.

SETUP



- › The sample (antenna under test), the current flowing through it and the EM-field at 1 m measured with a loop antenna (60cm) are obtained at 120Khz frequency.
- › Note:  $I_{pp}$  is the current peak to peak measured with the oscilloscope.

KGEA-MRHPM-B-0175J / H-FIELD @120kHz @2App @1m

H-FIELD ROAD MAP 360°

