# ANT-FLEXI-TR-01

## Antenna

## Datasheet

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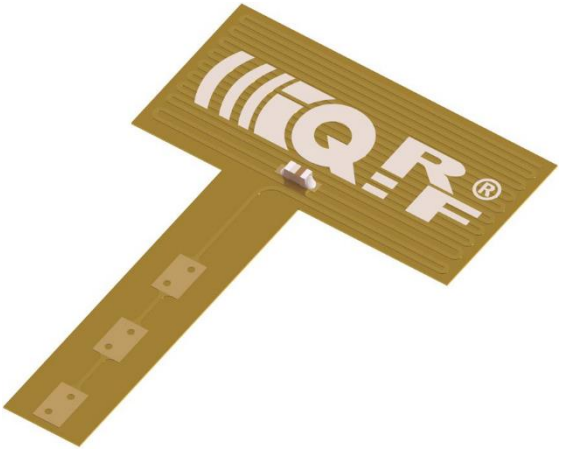
## Description

Antenna 868 MHz and 916 MHz for IQRF transceivers TR-7xD.
Designed as shortened ¼ wave whip printed on a flexible film.



## Features

- Optimized for IQRF transceivers TR-7xD
- Omnidirectional
- Adaptable terminal length

## Applications

- IQRF wireless platform
- 868 MHz band (EU and other countries) and 916 MHz (USA and other countries)

## *RF parameters*

| | |
|---|---|
| Frequency | |
| Nominal | 868 MHz and 916 MHz bands |
| Operating | 863 MHz to 870 MHz<br>902 MHz to 928 MHz |
| Gain | 4.45 dBi for 868 MHz and antenna terminal length 13.5 mm<br>2.6 dBi for 868 MHz and antenna terminal length 9.45 mm<br>1.6 dBi for 868 MHz and antenna terminal length 5.5 mm |
| | From 4.45 dBi to 0.7dBi for 916 MHz and antenna terminal length 13.5 mm. See *Diagram 2*. |
| Input impedance | 50 Ω |
| Max. RF power | 100 mW |
| Polarization | Vertical (when the antenna is mounted vertically) |
| Radiation pattern | Omnidirectional in the horizontal plane (when the antenna is mounted vertically) |

## *Mechanical parameters*

| | |
|---|---|
| Material | Polyimide film, thickness 0.1 mm |
| Terminal | Gold-plated, adaptable length in 3 steps: 13.5 mm, 9.45 mm or 5.5 mm |
| Connection | Soldering |
| Dimensions | 14.9 mm x 22.25 mm, can be shortened down to 18.20 mm or 14.25 mm |
| Weight | 0.03 g |
| Ambient temperature | -40 to +85 °C |

*All parameters are for guidance only and should be considered as typical.*

## *RF characteristics*

The diagrams below relate to the following arrangement: TR-76D transceiver with ANT-FLEXI-TR-01 antenna soldered, plugged in DK-EVAL-04A kit, either directly or (in Fig. 3) alternatively through the KON-TR-01 range extender.

Refer to the datasheet of the given TR transceiver, chapter *RF range*.

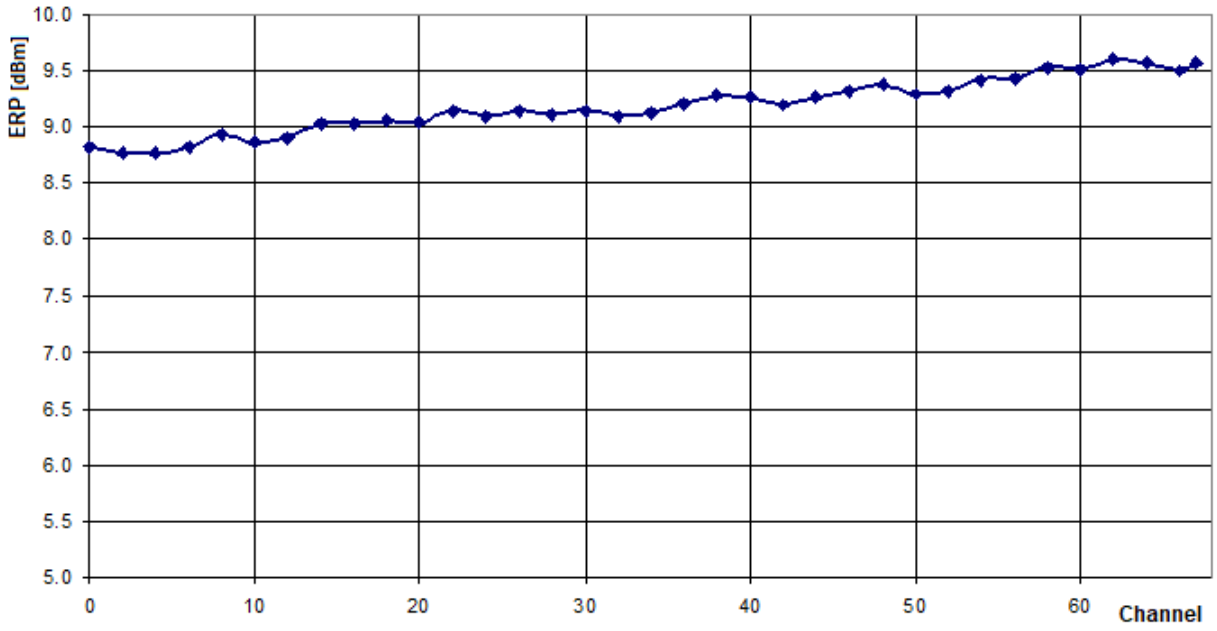



*Diagram 1: Effective radiated power vs. RF channel, 868 MHz band*

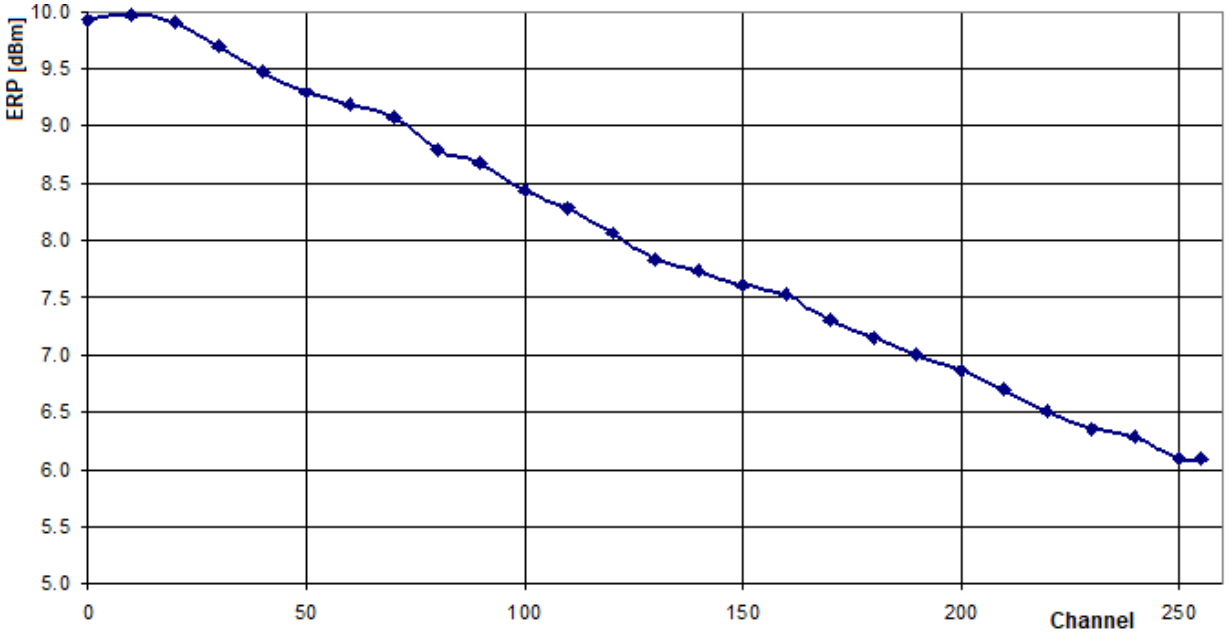



*Diagram 2: Effective radiated power vs. RF channel, 916 MHz band*

For RF channels refer to the IQRF OS User's guide, *Appendix 2 – Channel maps*.

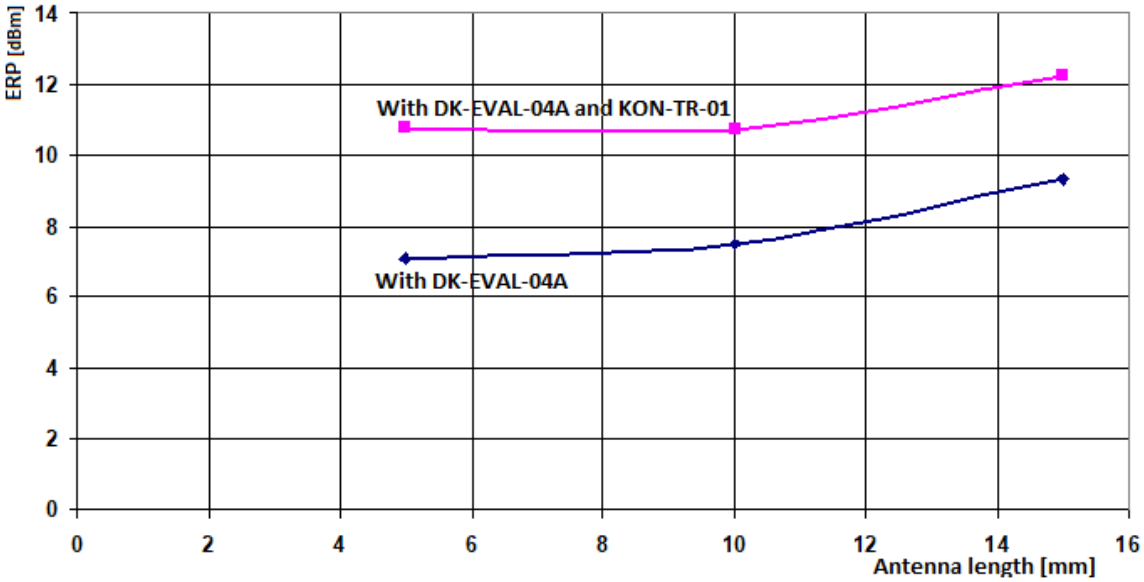



*Diagram 3: Effective radiated power vs. antenna length (5.5 mm, 9.45 mm or 13.5 mm), 868 MHz, channel 52*

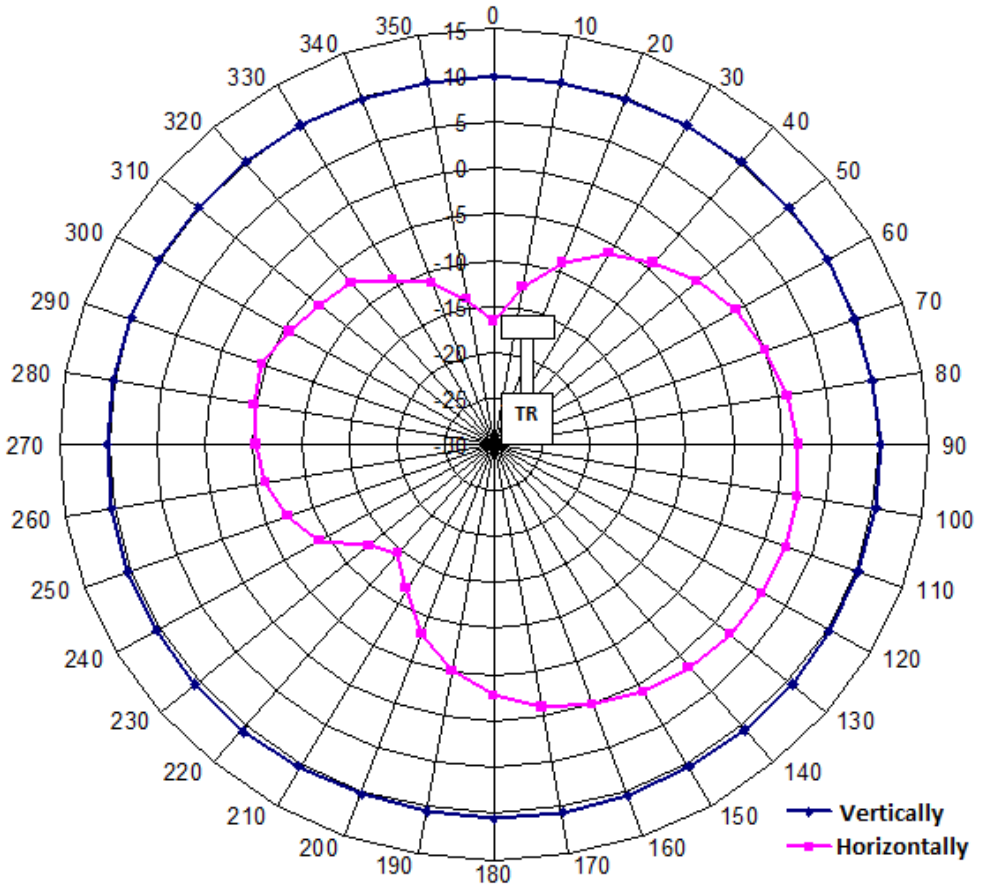
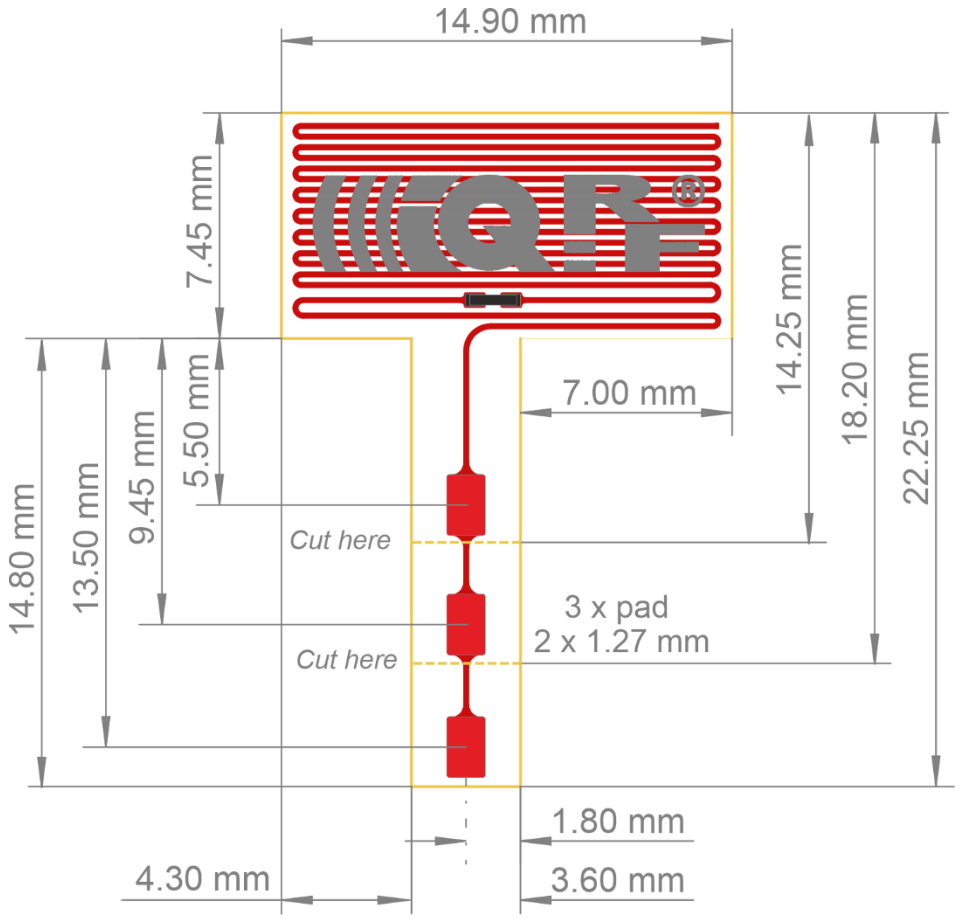



*Diagram 4: Effective radiated power [in dBm] vs. antenna orientation [in degrees] (radiation patterns)*

## *Mechanical drawing*




## *Product information*

### Ordering code

| | |
|---|---|
| ANT-FLEXI-TR-01 | Antenna 868 MHz and 916 MHz for TR-7xD |

### Document history

| | |
|---|---|
| 200701 | First release |

# Sales and Service

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