NFC- Smartphone readable: NeoTAG® Label MF/F2108

Custom-fit label transponder for HF/NFC applications

New

This new type of transponder was developed specially for applications where it is not possible to use one of our proven NeoTAG® transponder in Inlay, Plug or Flag versions due to the design requirement of the object. There are versions available for use with metallic and non-metallic objects. Depending on the required installation of the adhesive film transponders, different compositions can be realized with ferrite layers as the bottom or top layer. On non-metallic objects, there is no need for the ferrite film, thus creating very flat transponders. The outer dimensions can be adjusted variable to meet the application space requirements.

Due to its flexible design, this label transponder can be applied to both curved and bent surfaces.

Unlike label transponders with antenna layers made of aluminium or copper, this transponder uses an antenna layer of wounded copper wires. This produces significantly better electrical properties with regards to the electric quality factor and the effective antenna surface.
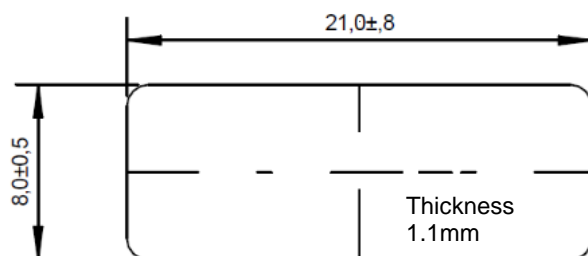
Compared to the other NeoTAG transponder designs, the larger antenna surface offers particularly exceptional read properties when combined with mobile end devices such as smartphones.

Image 1: NFC transponder, ferrite top layer

Image 2: NFC transponder, ferrite bottom layer

21,0±,8

8,0±,5

Thickness 1.1mm

Transponder dimensions, units: mm

Technical data:

Article number:	00705341 F2108 (with NXP ICODE SLIX) for non-metal use
	00705340 MF2108 (with NXP ICODE SLIX) for metal use
HF RFID protocol:	ISO 15693
Chip:	NXP ICODE SLIX, SLIX-S, SLIX2 and others upon request
Frequency:	13.56 MHz
Reader range:	with NFC compatible mobile end devices approx. 60mm, depending on mobile device
	with industrial HF-RFID readers: up to 100mm
Operating temperature:	0°C to +85°C
Protection class	IP44
Dimensions(LxWxT):	e.g. 21 x 8 x 1.1/0.9mm

Characteristics:

- Customised dimensions of wxh: 8x8mm to 50x50mm
- Transponder thickness with ferrite layer <1.1mm
- Transponder thickness without ferrite layer <0.9mm
- Application-specific adjustment of the layer design
- Automatic processing, e.g. using vacuum nozzle
- Attached using adhesive film
- Readable using industrial RFID readers from 200mW output power
- Alternatively readable and programmable using modern smartphones and other mobile devices with NFC function
- Programmable using URL data e.g. direct access to a webpage
- Vibration resistant
- User data memory: 896/2112/2528 bit depending on used IC
- IC with password protection and encoded protocol on request
- Top layer with customer-specific logo and colour on request
- NFC Forum Type 5 TAG
- Suitable for curved or bent surfaces
- High frequency stability of +/-200Hz

Applications:

- Service and maintenance
- Stock management
- Product tracking
- Errorless identification of shop-floor equipment such as tools, devices, operating material, machines, household appliances, ...
- Digital production and tool management in INDUSTRY 4.0
- Tool misuse protection
- IoT applications in conjunction with mobile end devices
- Electronic type plate
- Hidden labelling of non-metallic objects (see application example 2)
- For non-metallic objects: NeoTAG® Label F2108
- For metallic objects: NeoTAG® Label MF2108

Image 3: Application example 1: metallic object with embedded NFC label transponder NeoTAG® Label MF2108 (in metal)
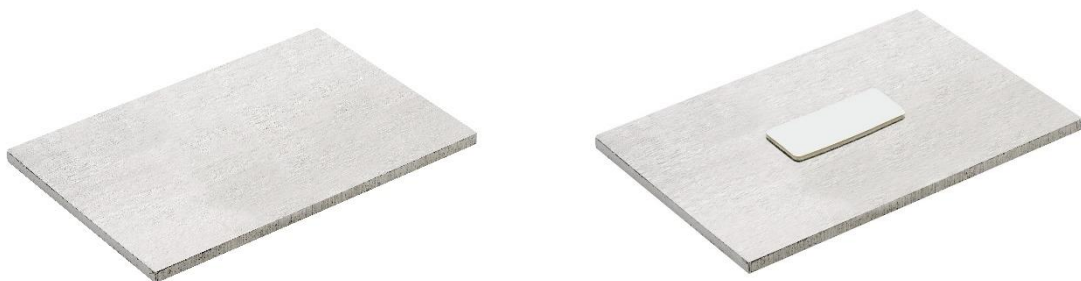

Image 4: Application example 2: metallic object with NFC label transponder NeoTAG® Label MF2108 on top(on metal)
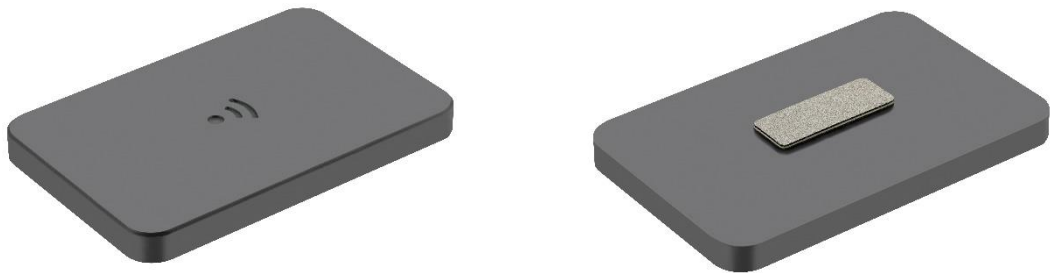
NEOSID
Expertise in components

Image 5: Application example 3: non-metallic object with NFC film transponder NeoTAG® Label F2108

Packaging:

VPE: 100 pcs as bulk package in plastic bag.
                1,500 pcs. on T&R