

# PRODUCT DATASHEET

iID® Transponder

## Qmini U-TAG 1.6

### UHF-RFID miniature transponder

- passive RFID communication ISM UHF band, EPC Class1 Gen2 or ISO 18000-6C, EEPROM memory
- miniaturized square TAG, 1.6mm<sup>2</sup> or 2.0mm<sup>2</sup>
- designed for small item tagging, tool management solutions, aircraft and automotive part tagging

This transponder device is an integral part of *microsensys* iID® system solution. This TAG operates with best performance together with *microsensys* standard RFID reader components using high sensitive demodulators.

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This data sheet is subject to change  
contact *microsensys* for latest information

Q1.6 UTAG 00

<b>RFID Technology:</b>	UHF close coupling system iID®4000, based on ISO 18000-6c, EPC Class1 Gen2		
<b>Chip Types:</b>	NXP UCODE 8, UCODE DNA*		
<b>Operating Frequency:</b>	860-868MHz, 915MHz (preferably 860-868MHz)		
<b>Polarisation:</b>	none, inductive coupling		
<b>Communication Rate:</b>	forward link: 40-160kBit/s, return link: 40-640kBit/s		
<b>Communication Distance:</b>	0 ... 20 mm, close coupling UHF communication (depending on reader system and environmental conditions)		
<b>Memory:</b>	features depending on RFID chip type		
<b>EPC/TID Memory:</b>	128bit EPC, 96 bit TID		
<b>User Memory:</b>	-		
<b>Type:</b>	EEPROM		
<b>Endurance:</b>	endurance 100000 cycles, data retention 20 years (T<55°C)		
<b>Sensor Functionality:</b>	-		
<b>Special Functionality:</b>	-		
<b>Environmental:</b>			
<b>Operating Temperature:</b>	-25°C ... +85°C		
<b>Storage Temperature:</b>	-45°C ... +125°C (for short time +150°C)		
<b>Dimensions:</b>	1.6 x 1.6 mm <sup>2</sup> , TH 0.5 mm (max)		Type: 100
	2.0 x 2.0 mm <sup>2</sup> , TH 0.6 mm (max)		Type: 101
<b>Case Material:</b>	fiberglass reinforced epoxy substrate, black epoxy glob top		
<b>Mounting Instructions:</b>	glue or shedding in cavity, not on metal plane side on top recommended glue: 2K-EP "plus endfest 300" UHU GmbH Germany		
<b>Protection Class:</b>	IP67		
<b>Marking:</b>	no marking		
<b>Appropriate RFID Reader:</b>	POCKETwork UHFcc, wireless handheld reader PENsolid UHF, wireless pen reader INDUSTRY 0906 UHF plus M8/M18 antenna, stationary industrial read write unit Other devices possible		

<b>Type :</b>	<b>19.948.100.00</b>	<b>19.948.101.00*</b>	<b>19.943.101.00*</b>	*on inquiry
<b>Chip Type:</b>	UCODE 8	UCODE 8	UCODE DNA	
<b>User Memory:</b>	0	0	up to 3k	bit
<b>Dimension:</b>	1.6 x 1.6 x 0.5	2.0 x 2.0 x 0.6	2.0 x 2.0 x 0.6	mm <sup>3</sup>
<b>Communication Distance:</b>	20	12	12	mm
				measured with M18 UHF antenna