



ANTENNAS

Original+ & One S Double Reader E2131 W40MD, W60MD

Version	Date	Changes	Author
1.0	17/09/2025	First edition	A.M.
1.1	0602/2026	Update for FCC & ISED	A.U.

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SALTO  WECOSYSTEM

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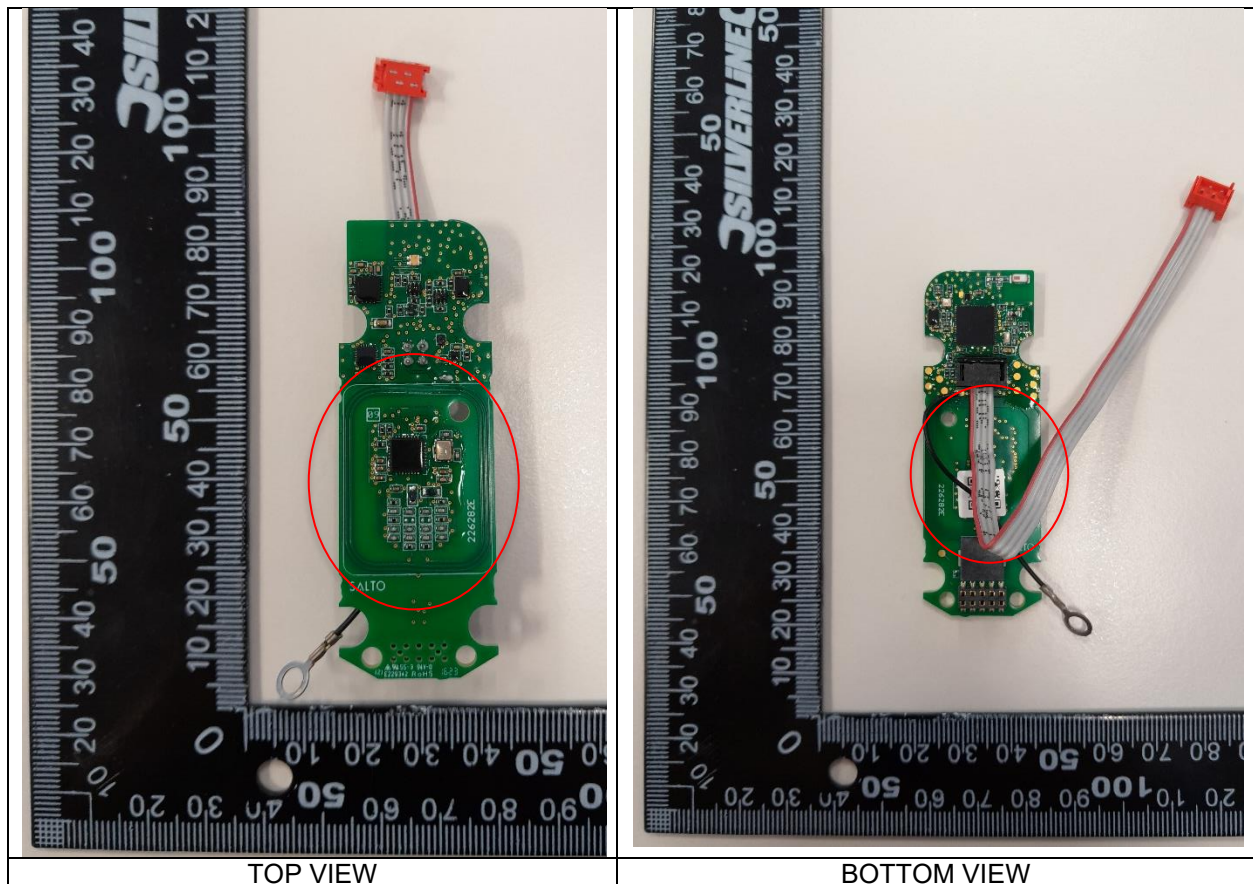
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1 W40MD

XS4 Original+ XS4 One S E2131		W40MD
		Outside Reader RFID (1) + Outside Reader Bluetooth LE (2) + Inside Reader RFID (3) + Inside Reader Bluetooth LE (4)
Antennas	Number of antennas	4
	Manufacturer	1. SALTO Systems, S.L. 2. JOHANSON 3. SALTO Systems, S.L. 4. JOHANSON
	Model number	1. W40MD 2. 2450AT18B100 3. W40MD 4. 2450AT18B100
	Type	1. Integral, PCB 2. Integral, Chip 3. Integral, PCB 4. Integral, Chip
	Gain	1. N/A dBi 2. 0.5 dBi 3. N/A dBi 4. 0.5 dBi
	Frequency of Operation	1. 13.553 - 13.567 MHz 2. 2400 - 2483.5 MHz 3. 13.553 - 13.567 MHz 4. 2400 - 2483.5 MHz
Channels	Number of channels	1. N/A 2. 40 3. N/A 4. 40
	Spacing	1. N/A 2. 2 MHz 3. N/A 4. 2 MHz
	Bandwidth	1. N/A 2. 1 MHz at 1Mbps 3. N/A 4. 1 MHz at 1Mbps
Type of Modulation		1. <u>ISO 14443A</u> : rader to card ASK 100%, card to reader OOK (subcarrier fc/16) & <u>ISO 15693</u> : reader to card ASK 10% - 30%, card to reader OOK (subcarrier fc/32) 2. GFSK 3. <u>ISO 14443A</u> : rader to card ASK 100%, card to reader OOK (subcarrier fc/16) & <u>ISO 15693</u> : reader to card ASK 10% - 30%, card to reader OOK (subcarrier fc/32) 4. GFSK
Magnetic field values (10 m) (H-Field)		1. -16 dBuA/m 2. N/A 3. -13 dBuA/m 4. N/A
Conducted Output Power (Max.)		1. N/A 2. 3.4 dBm 3. N/A 4. 4.2 dBm
RX Sensitivity		1. N/A 2. -96 dBm 3. N/A 4. -96 dBm
ITU Emission Designator		1. K1D 2. F1D 3. K1D 4. F1D
Equipment Configuration for frequency Stability: Data Rate		1. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 2. 1 Mbps 3. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 4. 1 Mbps
Equipment Configuration for Field Strenght Measurement: Data Rate		1. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 2. 1 Mbps 3. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 4. 1 Mbps

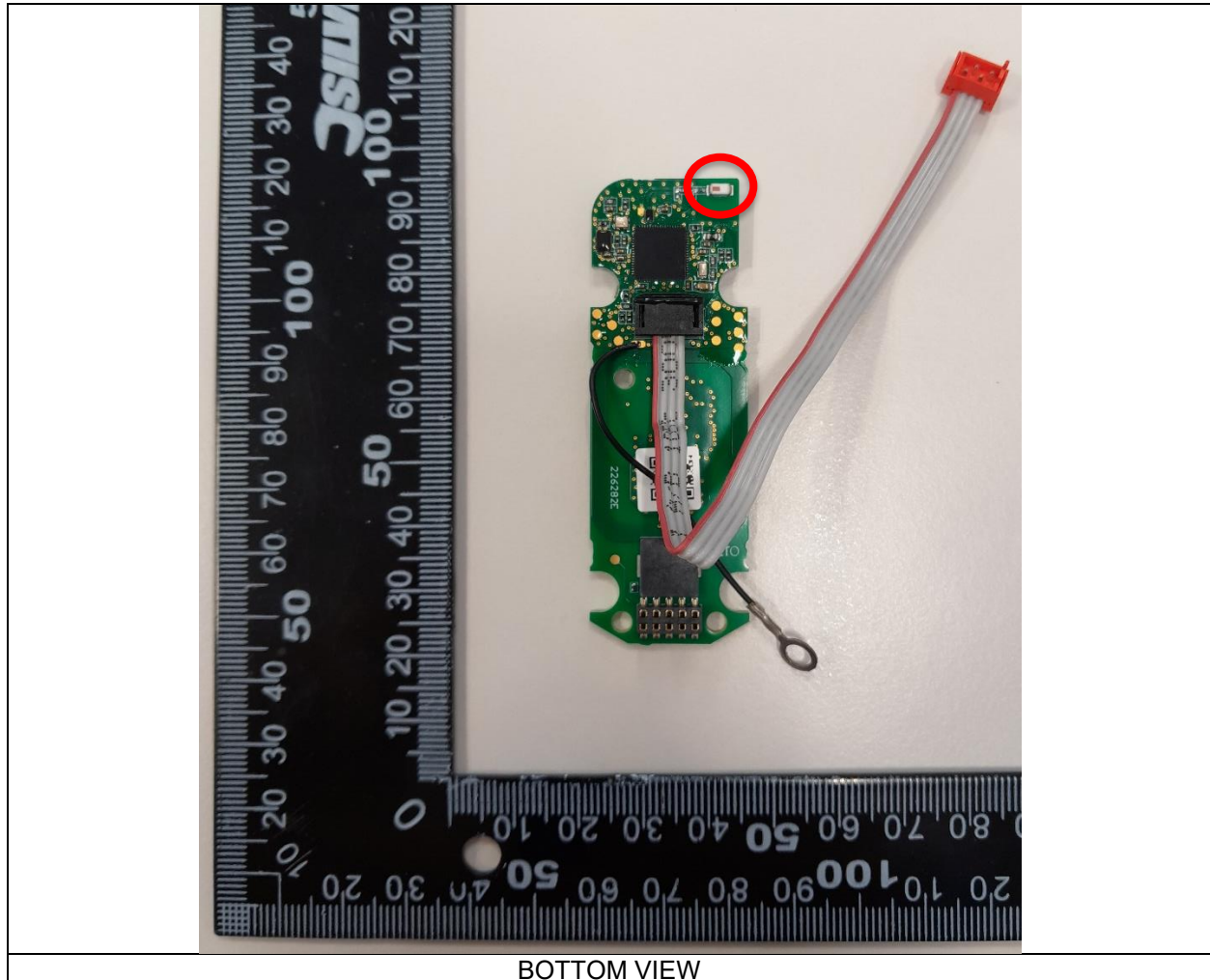
RFID Antenna

The RFID antenna was designed by Salto Systems, S.L. at Arkotz 9, Pol. Lanbarren 20180 Oiartzun (Gipuzkoa), Spain. The antenna model is W40MD and it is located on the control circuit 226282. This circuit is common for exterior reader and interior reader. The dimensions of the circuit and the antenna are shown in the following pictures.



Bluetooth LE antenna

The Bluetooth LE antenna is the 2450AT18B100 model from Johanson Technology. The antenna is located on the bottom side of the control circuit, 226282. This circuit is common for exterior reader and interior reader. The following image shows the location of the antenna on the control circuit.



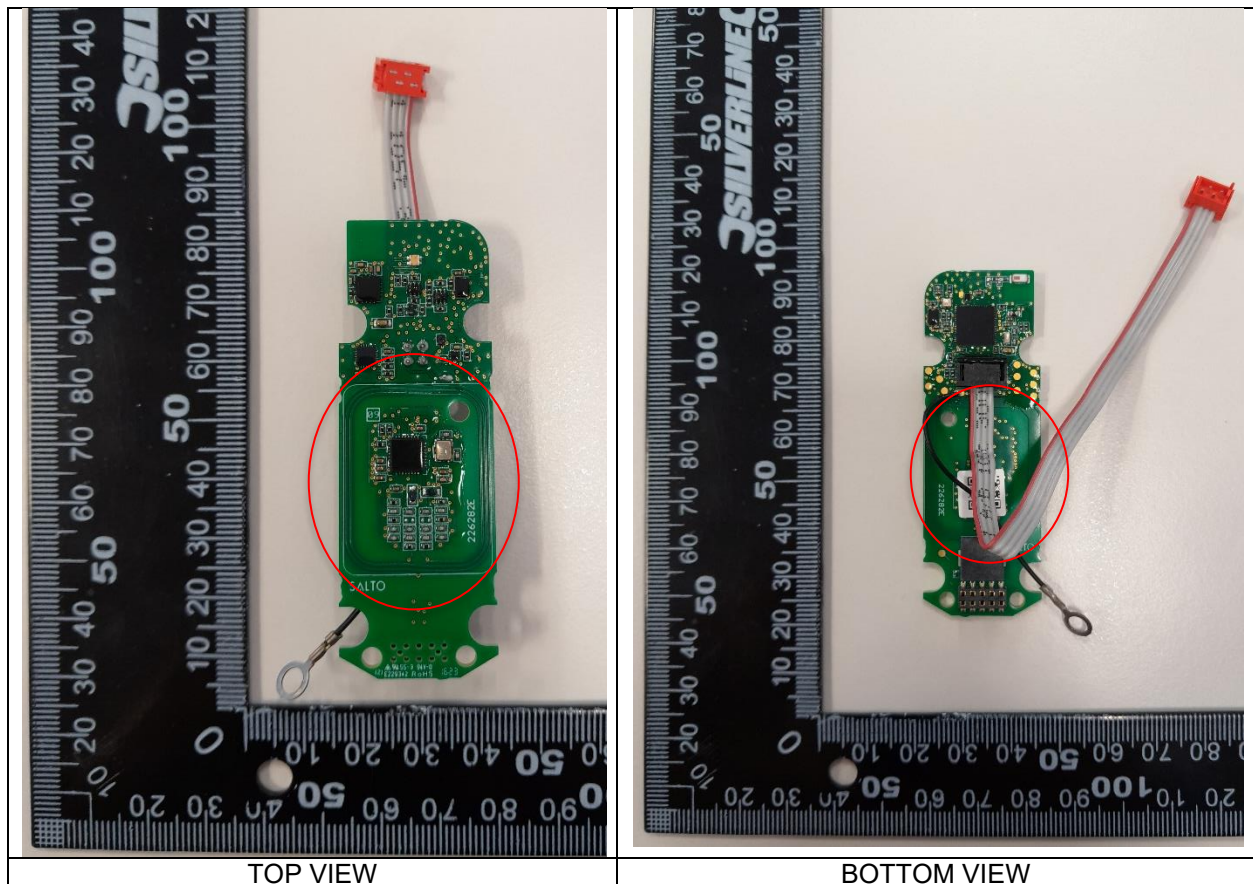
The remaining technical information of the antenna is described in the data sheet attached in Annex I.

2 W60MD

XS4 Original+ XS4 One S E2131		W60MD
		Outside Reader RFID (1) + Outside Reader Bluetooth LE (2) + Inside Reader RFID (3) + Inside Reader Bluetooth LE (4)
Antennas	Number of antennas	4
	Manufacturer	1. SALTO Systems, S.L. 2. JOHANSON 3. SALTO Systems, S.L. 4. JOHANSON
	Model number	1. W40MD 2. 2450AT18B100 3. W40MD 4. 2450AT18B100
	Type	1. Integral, PCB 2. Integral, Chip 3. Integral, PCB 4. Integral, Chip
	Gain	1. N/A dBi 2. 0.5 dBi 3. N/A dBi 4. 0.5 dBi
	Frequency of Operation	1. 13.553 - 13.567 MHz 2. 2400 - 2483.5 MHz 3. 13.553 - 13.567 MHz 4. 2400 - 2483.5 MHz
Channels	Number of channels	1. N/A 2. 40 3. N/A 4. 40
	Spacing	1. N/A 2. 2 MHz 3. N/A 4. 2 MHz
	Bandwidth	1. N/A 2. 1 MHz at 1Mbps 3. N/A 4. 1 MHz at 1Mbps
Type of Modulation		1. <u>ISO 14443A</u> : rader to card ASK 100%, card to reader OOK (subcarrier fc/16) & <u>ISO 15693</u> : reader to card ASK 10% - 30%, card to reader OOK (subcarrier fc/32) 2. GFSK 3. <u>ISO 14443A</u> : rader to card ASK 100%, card to reader OOK (subcarrier fc/16) & <u>ISO 15693</u> : reader to card ASK 10% - 30%, card to reader OOK (subcarrier fc/32) 4. GFSK
Magnetic field values (10 m) (H-Field)		1. -19 dBuA/m 2. N/A 3. -13 dBuA/m 4. N/A
Conducted Output Power (Max.)		1. N/A 2. 3.4 dBm 3. N/A 4. 4.2 dBm
RX Sensitivity		1. N/A 2. -96 dBm 3. N/A 4. -96 dBm
ITU Emission Designator		1. K1D 2. F1D 3. K1D 4. F1D
Equipment Configuration for frequency Stability: Data Rate		1. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 2. 1 Mbps 3. <u>ISO 14443A</u> : 106 Kbit/s & <u>ISO 15693</u> : 26.48 Kbit/s 4. 1 Mbps
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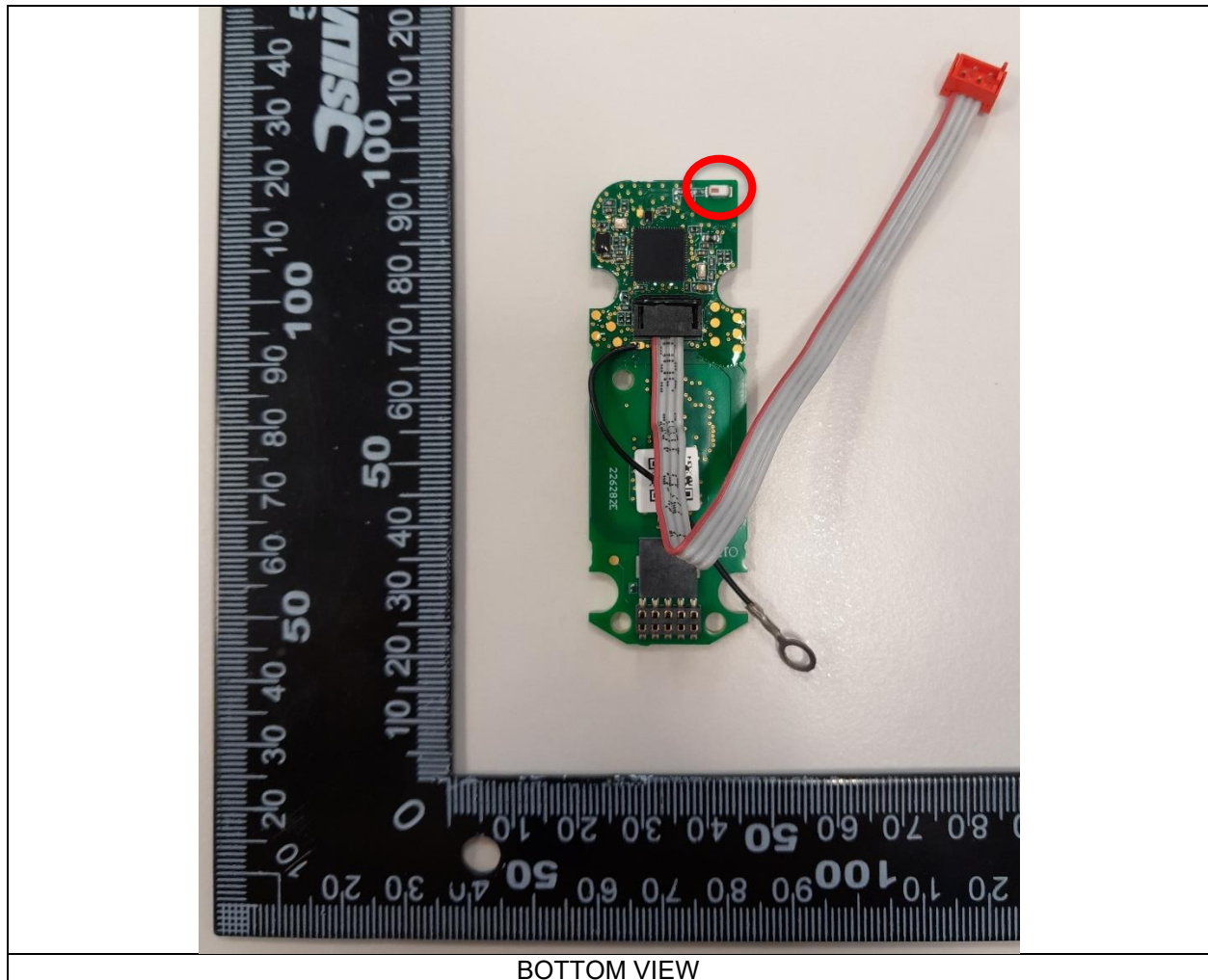
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