

## WLAN

WLAN in accordance with IEEE 802.11 a

### See also

Interfaces of the HMI device (Page 76)

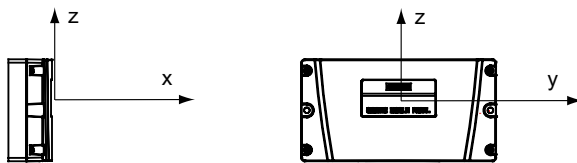
## 13.3 Radiation characteristic

### 13.3.1 Radiation characteristic of the transponder

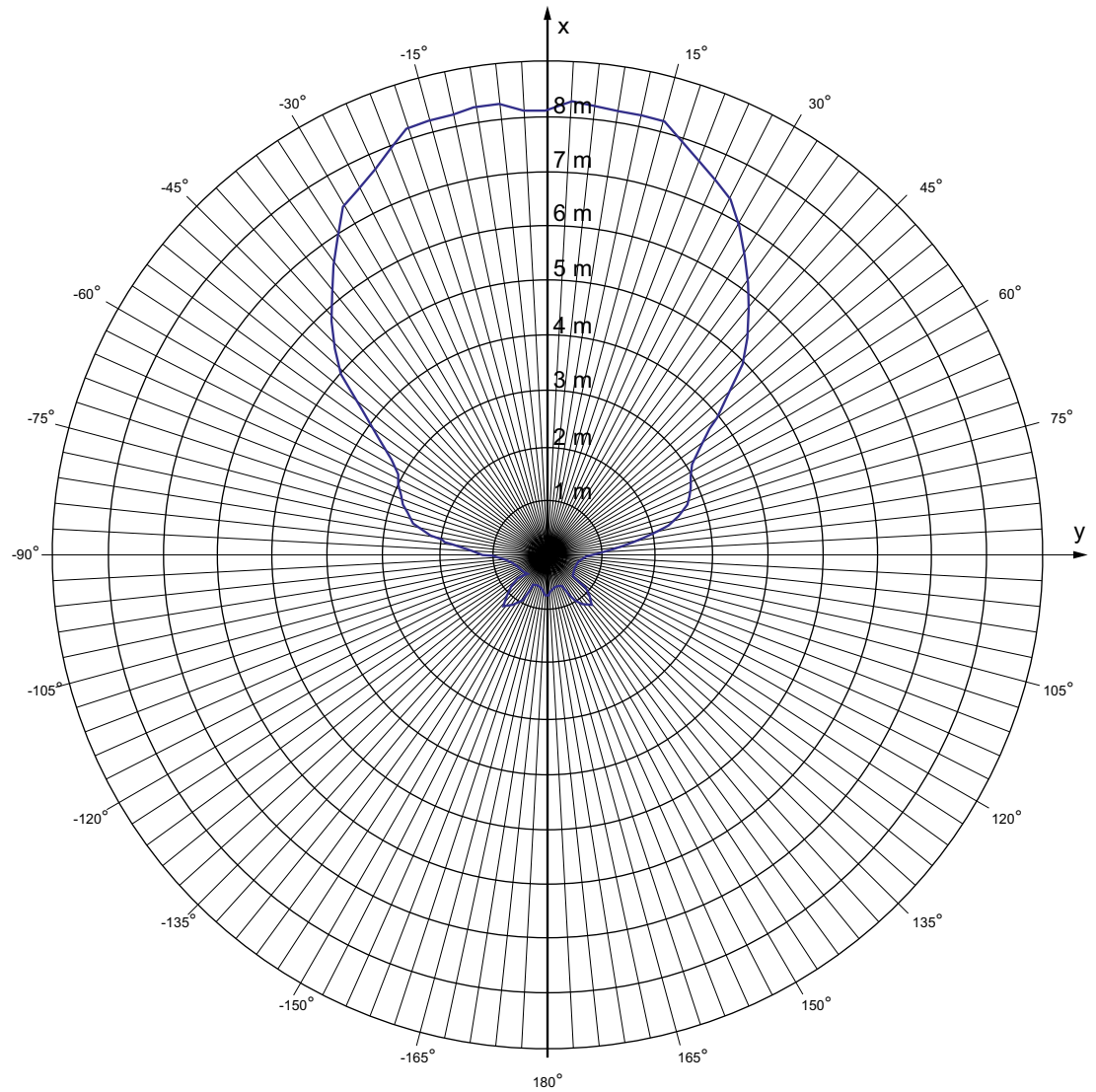
Antenna type	Dual port patch antenna
Polarization	Vertical and horizontal
Frequency band	2400 - 2483 MHz
Antenna gain	Max. in main count direction • Port 1: 2,6 dBic • Port 2: 2.7 dBic
Impedance	50 $\Omega$
Full widths at half maximum, horizontal at 2.45 GHz	93°
Full widths at half maximum, vertical at 2.45 GHz	90°

#### Ranges depending on angular displacement to main count direction

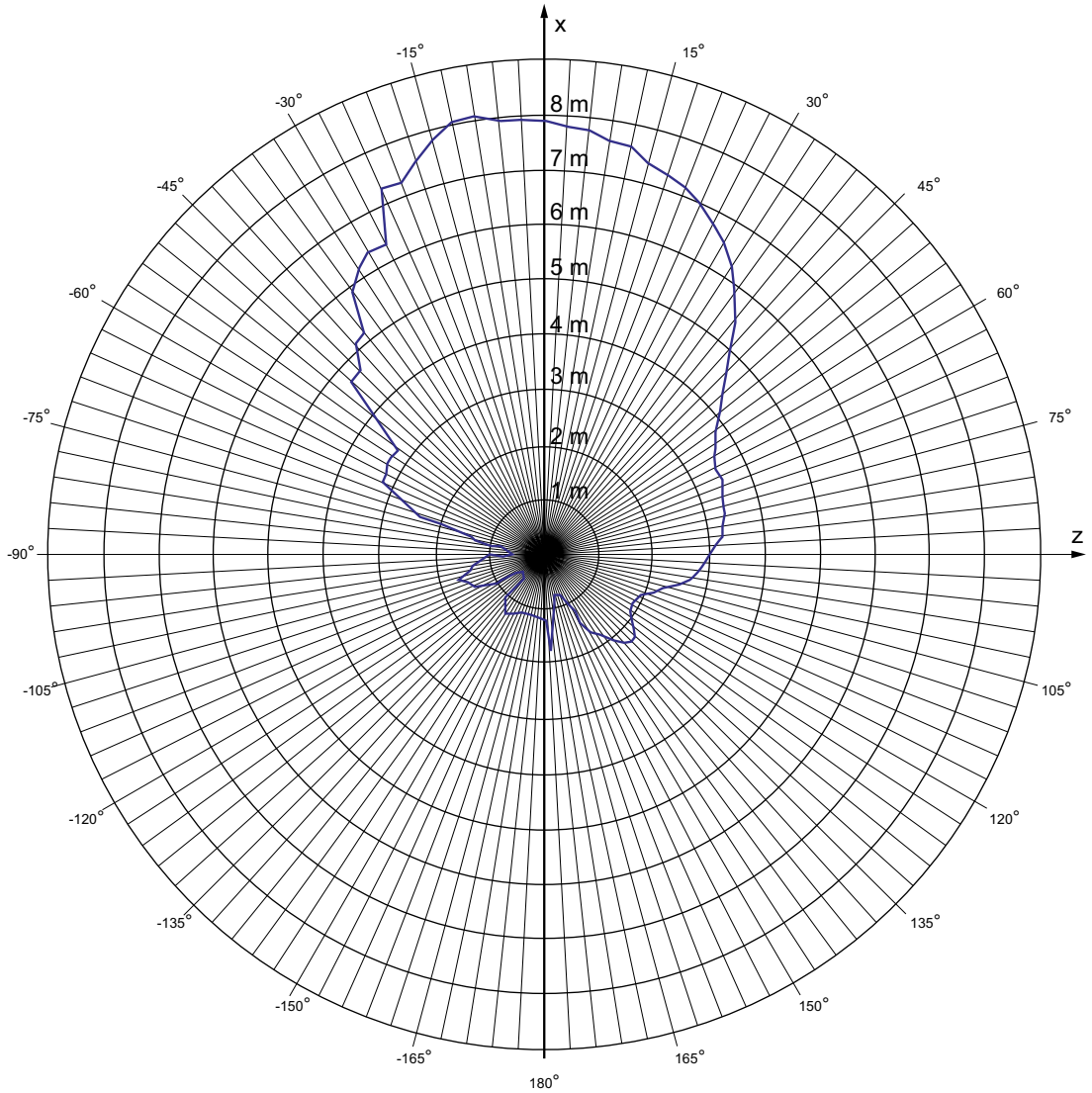
The following figure shows the coordinate system applied to the transponder.



The figure below shows the transponder range depending on the angular displacement to the main count direction in the y direction:



The following figure shows the transponder range depending on the angular displacement to the main count direction in the z direction:

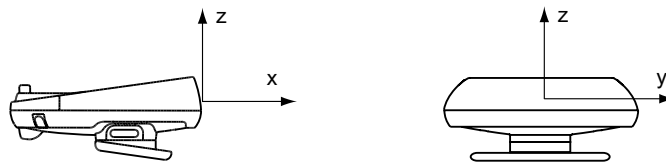


### 13.3.2 Radiation characteristic of HMI device

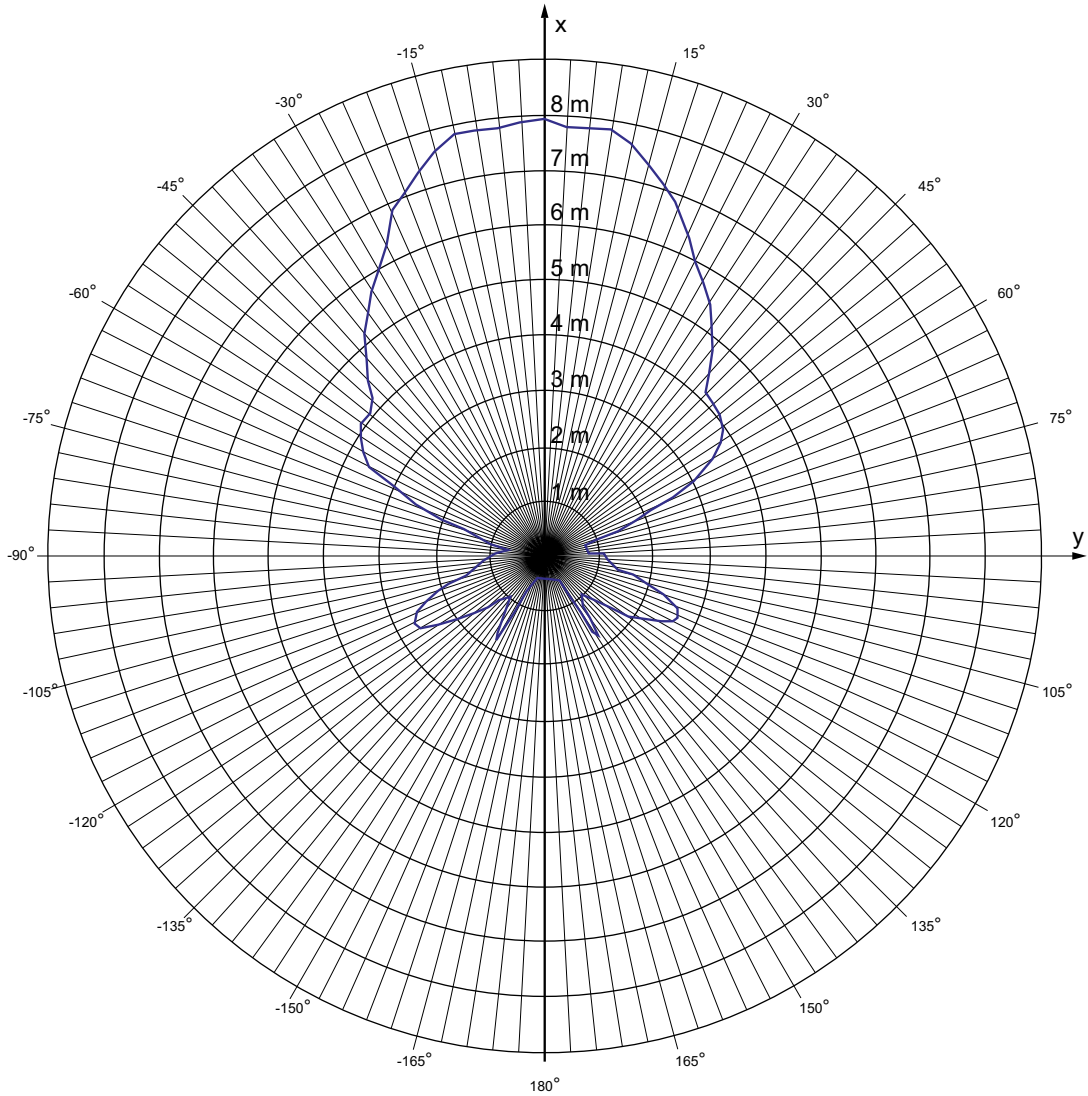
Antenna type	Dual port patch antenna
Polarization	Vertical and horizontal
Frequency band	2400 - 2483 MHz
Antenna gain	Max. in main count direction • Port 1: 2,6 dBic • Port 2: 2.7 dBic
Impedance	50 $\Omega$
Full widths at half maximum, horizontal at 2.45 GHz	83°
Full widths at half maximum, vertical at 2.45 GHz	80°

#### Ranges depending on angular displacement to main count direction

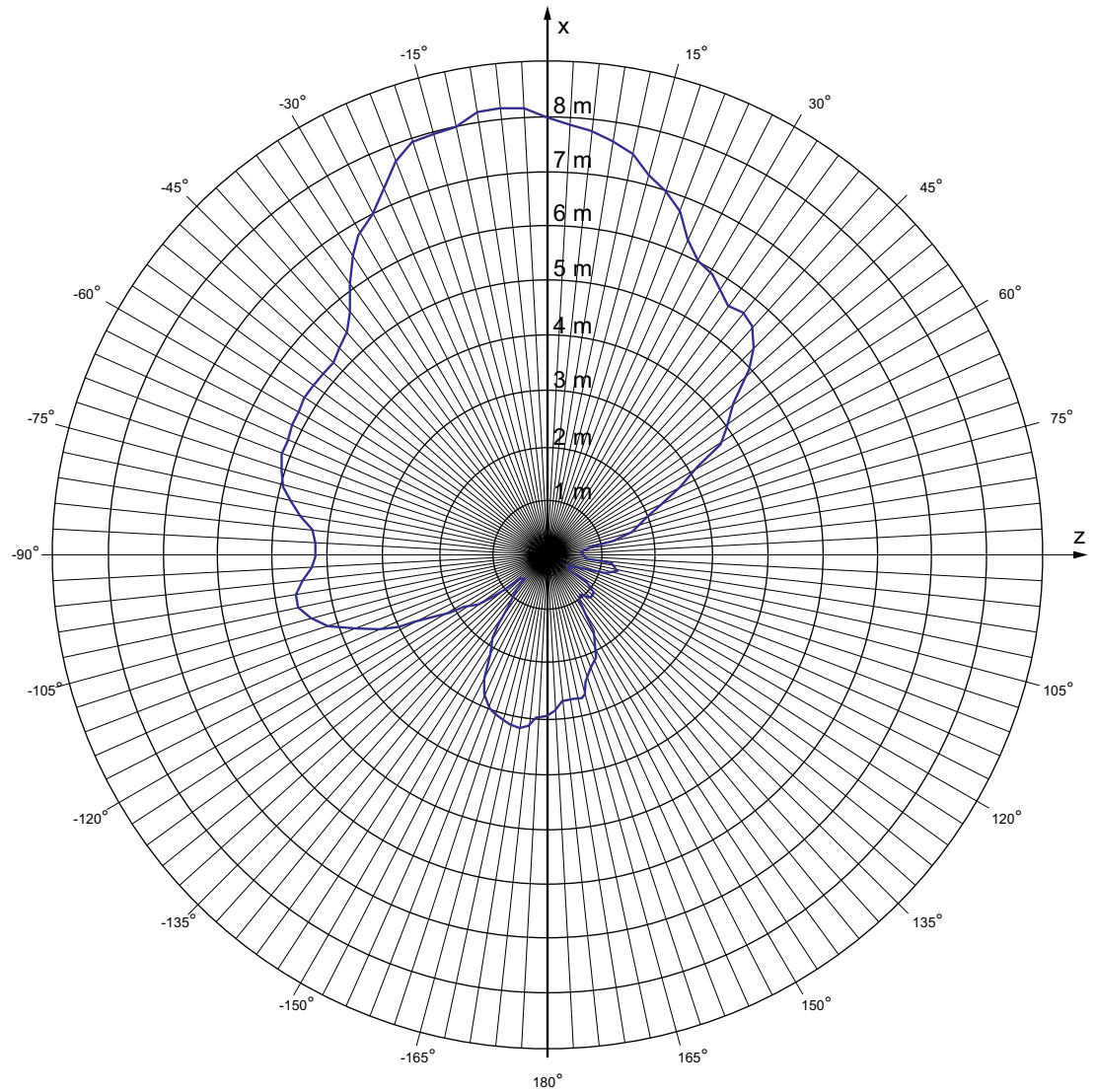
The figure below shows the coordinate system applied to the HMI device.



The figure below shows the HMI device range depending on the angular displacement to the main count direction in the y direction:



The figure below shows the HMI device range depending on the angular displacement to the main count direction in the z direction:





Mini PCI



MMCX



SMA

<b>Model</b>	<b>IM-351</b>	<b>IM-352</b>
<b>Frequency</b>	2.4~2.4835GHz	
<b>Impedance</b>	50 Ohms nominal	
<b>SWR</b>	≤2.0	
<b>Gain</b>	1.5 dBi	
<b>Radiation</b>	Omni	
<b>Height</b>	65mm	62mm



<b>Model</b>	<b>IMF-351</b>	<b>IMF-352</b>	<b>TMF-353</b>
<b>Frequency</b>	2.4~2.4835GHz		2.4 / 5.2 / 5.8GHz
<b>Impedance</b>	50 Ohms nominal		
<b>SWR</b>	≤2.0		
<b>Gain</b>	1.5 dBi		2 dBi
<b>Radiation</b>	Omni		
<b>Height</b>	65mm	64mm	67mm



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