### 4-Port Antenna 1710–2690/1710–2690 65°/65° 16.5/16.5dBi 0°–12°/0°–12°T

<table>
<thead>
<tr>
<th>Type No.</th>
<th>80010682</th>
</tr>
</thead>
</table>

**Highband**

<table>
<thead>
<tr>
<th>Frequency range MHz</th>
<th>1710 – 1990</th>
<th>1920 – 2200</th>
<th>2200 – 2490</th>
<th>2490 – 2690</th>
</tr>
</thead>
</table>

**Polarization**

- +45, –45

**Gain at 0° tilt**

- 15.8

**Horizontal Pattern:**

- **Half-power beam width**
  - 65
  - 64
  - 60
  - 61

- **Front-to-back ratio, copolar**
  - > 30
  - > 30
  - > 30
  - > 28

- **Cross polar ratio**
  - > 8

**Sector**

- **0°**
  - Typically: 25

- **±60°**
  - Typically: 25

**Vertical Pattern:**

- **Half-power beam width**
  - 11
  - 10
  - 9
  - 8.7

- **Electrical tilt**
  - 0°–12°, continuously adjustable

- **Sidelobe supression for first sidelobe above main beam**
  - 0°–6°
  - 12°–13°–15°
  - 16°–17°–19°

- **Impedance**
  - 50

- **VSWR**
  - < 1.5

- **Isolation, between ports**
  - > 30

- **Intermodulation IM3**
  - < –150 (2 x 43 dBm carrier)

- **Max. eff. power per port**
  - 200 (at 50 °C ambient temperature)

- **Max. eff. power for the antenna**
  - 600 (at 50 °C ambient temperature)

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### Mechanical specifications

<table>
<thead>
<tr>
<th>Input</th>
<th>4 x 7-16 female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector position</td>
<td>Bottom</td>
</tr>
<tr>
<td>Adjustment mechanism</td>
<td>2x, Position bottom continuously adjustable</td>
</tr>
<tr>
<td>Wind load (at Rated Wind Speed: 150 km/h)</td>
<td>N</td>
</tr>
<tr>
<td>Frontal: 345</td>
<td>78</td>
</tr>
<tr>
<td>Maximal: 380</td>
<td>85</td>
</tr>
<tr>
<td>Max. wind velocity km/h</td>
<td>200</td>
</tr>
<tr>
<td>mph</td>
<td>124</td>
</tr>
<tr>
<td>Height / width / depth mm</td>
<td>855</td>
</tr>
<tr>
<td>inches</td>
<td>33.7</td>
</tr>
<tr>
<td>Category of mounting hardware</td>
<td>M (Medium)</td>
</tr>
<tr>
<td>Weight kg</td>
<td>11 / 13.2 (clamps incl.)</td>
</tr>
<tr>
<td>lb</td>
<td>24.3 / 29.1 (clamps incl.)</td>
</tr>
<tr>
<td>Packing size mm</td>
<td>1146 x 337 x 112</td>
</tr>
<tr>
<td>inches</td>
<td>45.1 x 13.3 x 4.4</td>
</tr>
<tr>
<td>Scope of supply</td>
<td>Panel and 2 units of clamps for 42–115 mm</td>
</tr>
</tbody>
</table>

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All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com
Accessories

General Information

Accessories (order separately if required)

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Description</th>
<th>Remarks mm</th>
<th>Weight approx. kg</th>
<th>Units per antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>731651</td>
<td>1 clamp</td>
<td>Mast diameter: 28 – 60</td>
<td>0.8</td>
<td>1.8</td>
</tr>
<tr>
<td>85010002</td>
<td>1 clamp</td>
<td>Mast diameter: 110 – 220</td>
<td>2.7</td>
<td>6.0</td>
</tr>
<tr>
<td>85010003</td>
<td>1 clamp</td>
<td>Mast diameter: 210 – 380</td>
<td>4.8</td>
<td>10.6</td>
</tr>
<tr>
<td>737978</td>
<td>1 downtilt kit</td>
<td>Downtilt angle: 0° – 24°</td>
<td>2.3</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Accessories (included in the scope of supply)

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Description</th>
<th>Remarks mm</th>
<th>Weight approx. kg</th>
<th>Units per antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>738546</td>
<td>1 clamp</td>
<td>Mast diameter: 42 – 115</td>
<td>1.1</td>
<td>2.4</td>
</tr>
</tbody>
</table>

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.

Wall mounting: No additional mounting kit needed.

Material:

- **Reflector screen**: Aluminum.
- **Radiator**: Tin-plated zinc.
- **Flat fiberglass radome**: The max. radome depth is only 71 mm. Fiber-glass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is grey.
- **All screws and nuts**: Stainless steel or hot-dip galvanized steel.

Grounding:

The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Correlation Table

<table>
<thead>
<tr>
<th>Frequency range</th>
<th>Array</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1710–2690 MHz</td>
<td>Y1</td>
<td>1–2</td>
</tr>
<tr>
<td>1710–2690 MHz</td>
<td>Y2</td>
<td>3–4</td>
</tr>
</tbody>
</table>

Layout of interface:

- **Bottom view**
  - Dimensions refer to radome
  - All dimensions in mm | inches

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The latest specifications are available at www.kathreinusa.com

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
Phone: 214.238.8800    Fax: 214.238.8801    Email: info@kathrein.com
Mounting Hardware
Clamp Included in the Scope of Supply

<table>
<thead>
<tr>
<th>Suitable for mast diameter (mm) [inches]</th>
<th>42 – 115 [1.65 – 4.53]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna – mast distance (mm) [inches]</td>
<td>20 – 25 [0.79 – 0.98]</td>
</tr>
<tr>
<td>Material of clamp and screws</td>
<td>Hot-dip galvanized steel / stainless steel</td>
</tr>
<tr>
<td>Weight (kg) [lb]</td>
<td>1.1 [2.43]</td>
</tr>
</tbody>
</table>

Please note: Kathrein does not recommend to use counter nuts. The additional nuts supplied are only meant as spares.

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**General Instructions for Adjustment Mechanism**

**Description of the adjustment mechanism (protective cap removed):**

1. Adjustment wheel with twist-lock function.
2. Downtilt spindle with integrated scale.

1. Thread for fixing the protective cap or the RCU (Remote Control Unit).
2. Gearwheel for RCU power drive.

To set the downtilt angle exactly, you must look horizontally at the scale. The lower edge of the gearwheel must be used for alignment.

**Manual adjustment procedure:**

1. Remove the protective cap.
2. Set downtilt angle by rotating the adjustment wheel.
3. Screw on the protective cap again.

**Optional: RCU (Remote Control Unit) for remote-controlled downtilt adjustment:**

For a description of RCU installation please refer to the respective data sheet.
General Instructions for Feederline Installation on Panels with four Connectors arranged on two Levels

Please note: In order not to damage the interfaces, please make sure that only the right tools are used. Tighten the feederline connector interfaces solely by using a common torque-wrench with a suitable wrench width.

Description of connector arrangement:

There are four interfaces for feeding the antenna located at the bottom.

The connectors are mounted at two levels in order to facilitate feederline installation.

Attachment of the feederline connector and RCU (optional):
In order to protect the adjustment mechanism the protective caps have to be attached during feederline installation!

Start with the rearside located interface no. 1.
Place the connector carefully and fix the nut using a torque-wrench (according to the manufacturers guidelines).
The further sequence for the installation is: feederlines no. 2, 3, 4.

After feederline installation the optional remote control units (RCU) can be mounted if required.

For a full description of RCU installation please refer to the respective data sheet.

Please note: Additional weather sealing of correctly installed feederline connector interfaces is not required, nor is it recommended by the connector manufacturers.