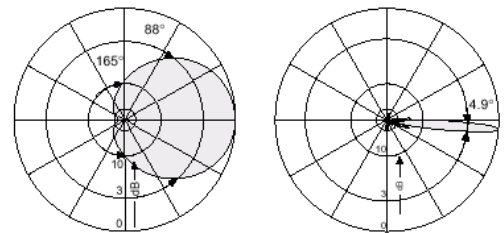


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<b>ERAABE</b>		<b>1301-KRE 101 1959/1 Uen</b>		
Approved	Checked	Date	Rev	Reference
EAB/RWB/T (L-O Fager)		2003-04-08	C	

**ANTENNA**



1710 – 1880 MHz: +45°/–45° Polarization

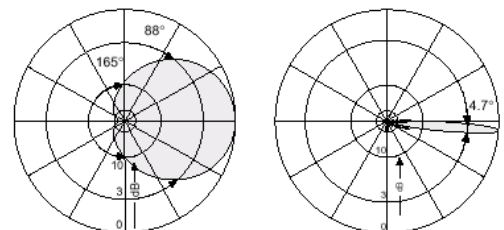


Horizontal Pattern

Vertical Pattern

0°–6° electrical downtilt

1850 – 1990 MHz: +45°/–45° Polarization

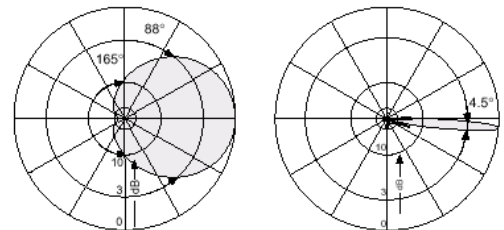


Horizontal Pattern

Vertical Pattern

0°–6° electrical downtilt

1920 – 2170 MHz: +45°/–45° Polarization



Horizontal Pattern

Vertical Pattern

0°–6° electrical downtilt

1 **GENERAL**

1.1 **DESCRIPTION**

Multi-band panel antenna for base stations. Two systems with +45° and –45° polarisation cover GSM 1800, GSM 1900 and WCDMA. Consists of arrays of dipole elements covered by a fibre glass radome. Provided with manually adjustable electrical down-tilt.

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## 2 CHARACTERISTIC VALUES

### 2.1 ELECTRICAL DATA

Frequency range:	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz
Polarisation:	+45°, -45°		
Gain:	2 x 17.7 dBi	2 x 18 dBi	2 x 18.2 dBi
Horizontal beamwidth:	88°	88°	88°
Vertical beamwidth:	4.9°	4.7°	4.5°
Electrical tilt:	0-6° manually adjustable electrical tilt (MET)		
Sidelobe suppression for first sidelobe above horizon:	0°...2°...4°...6° tilt 17..17..17.. 17 dB	0°...2°...4°...6° tilt 18..18..18.. 18 dB	0°...2°...4°...6° tilt 18..18..18.. 18 dB
Front-to-back ratio, - co-polar: - total power:	> 25 dB > 25 dB	> 25 dB > 25 dB	> 24 dB > 24 dB
Cross-polar ratio - main direction 0°: - sector ±60°:	typically 20 dB >10 dB		
Isolation between ports:	> 30 dB		
Impedance:	50 ohm		
VSWR:	< 1.5	< 1.5	< 1.5
Intermodulation:	IM3: -150 dBc @2x43 dBm	IM3: -150 dBc @2x43 dBm	IM7: -125 dBm @2x46 dBm
Max power per input:	300 W (at 50° ambient temperature)		
Lightning protection	Metal parts and inner conductors DC grounded		

Other electrical data according to Basic Specification  
 1/1056-CRH 102 19/1 Uen, rev A.

### 2.2 MECHANICAL DATA

Rated wind velocity: 55.6 m/s  
 Wind load at 42 m/s,      frontal: 195 N  
                                          lateral: 160 N  
                                          rear side: 480 N  
 Connector type: 7-16 female (2 pcs)  
 Connector position: bottom  
 Radome material: glass fibre  
 Colour: grey

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2.3 DIMENSIONS

Height:	1942 mm
Width:	155 mm
Depth:	69 mm
Weight:	9 kg

3 ACCESSORIES

The following accessory is delivered with the antenna. Quantities: see product list.

Product no	Supplier code	Description
SXA 120 106/1	738 546	1 clamp, mast diam = 50-115 mm

The following accessory is an option to be ordered separately.

Product no	Supplier code	Description
SXA 120 103/4	737 975	Downtilt kit 0°-11°

4 ENVIRONMENTAL ENDURANCE

According to Basic Specification1/1056-CRH 102 19/1 Uen, rev A.

Operating temperature:	low:	-55°C
	high (dry):	+60°C

5 INTERNAL INFORMATION

Supplier: Kathrein, Germany

6 PRODUCT LIST

Product no	Supplier code	
KRE 101 1959/1	<sup>1)</sup>	

<sup>1)</sup> Consists of: antenna 741 990  
clamps 738 546 (2 pcs)