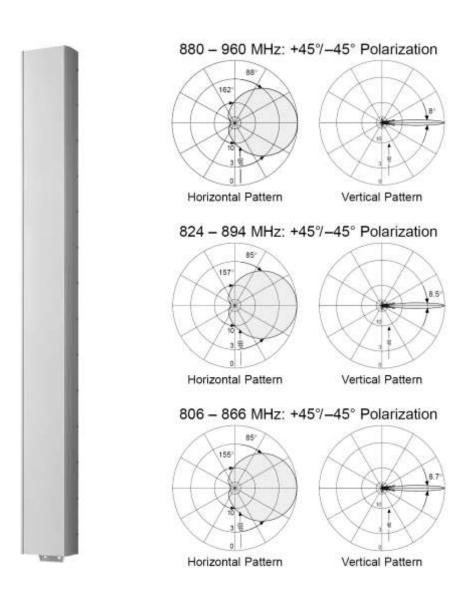


| Prepared (also subject responsible if other) |         | No.                     |     |           |
|--|---------|-------------------------|-----|-----------|
| XSNABEM                                      |         | 1301-KRE 101 2007/1 Uen |     |           |
| Approved                                     | Checked | Date                    | Rev | Reference |
| EAB/PJR/ST (L-O Fager)                       |         | 2006-05-10              | Е   |           |

#### **Antenna**



## 1 General

## 1.1 Description

Panel antenna for base stations. Two systems with +45° and -45° polarisation cover GSM 800 and GSM 900. Consists of arrays of dipole elements covered by a fibre glass radome.



| Prepared (also subject responsible if other) |                        | No.     |                         |     |           |
|--|------------------------|---------|-------------------------|-----|-----------|
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|  | Approved               | Checked | Date                    | Rev | Reference |
|  | EAB/PJR/ST (L-O Fager) |         | 2006-05-10              | E   |           |

# 2 Characteristic values

#### 2.1 Electrical data

| <u>r</u>   | T  |                                | 1                              |  |
|--|--|--------------------------------|--------------------------------|--|
| Frequency range:   | 806–866 MHz                                  | 824–894 MHz                    | 880–960 MHz                    |  |
| Polarisation:  | +45°, -45°                                   |                                |                                |  |
| Gain:  | 2 x 16.5 dBi                                 | 2 x 16.6 dBi                   | 2 x 16.8 dBi                   |  |
| Horizontal beamwidth:  | 85°  | 85°                            | 88°                            |  |
| Vertical beamwidth:  | 8.7°   | 8.5°                           | 8°                             |  |
| Sidelobe suppression: - first sidelobe above horizon                 | >18 dB                                       | >18 dB                         | >18 dB                         |  |
| Front-to-back ratio,<br>- co-polar:                                  | >28 dB                                       | >28 dB                         | >27 dB                         |  |
| Cross-polar ratio - main direction 0°: - sector ±30°: - sector ±60°: | Typically: 20 dB >20 dB >15 dB               | Typically: 20 dB >20 dB >15 dB | Typically: 20 dB >17 dB >14 dB |  |
| Isolation between ports:   | >30 dB                                       |                                |                                |  |
| Impedance:   | 50 ohm                                       |                                |                                |  |
| VSWR:  | <1.5   | <1.5                           | <1.5                           |  |
| Intermodulation:   | IM3: -150 dBc<br>@2x43 dBm                   |                                |                                |  |
| Max power per input:   | 500 W (at 50° ambient temperature)           |                                |                                |  |
| Lightning protection   | Metal parts and inner conductors DC grounded |                                |                                |  |

Other electrical data according to Basic Specification 4/1029-COA 109 120 Uen.

#### 2.2 Mechanical Data

Rated wind velocity: 55.6 m/s Wind load at 42 m/s, frontal: 400 N

lateral: 260 N rear side: 890 N

Connector type: 7-16 female (2 pcs)

Connector position: rear side Radome material: glass fibre

Colour: grey



|  |         |                          |                         |           | - (-) |
|--|---------|--------------------------|-------------------------|-----------|-------|
| Prepared (also subject responsible if other) |         | No.                      |                         |           |       |
| XSNABEM                                      |         | 1301-KRE 10 <sup>2</sup> | 1301-KRE 101 2007/1 Uen |           |       |
| Approved                                     | Checked | Date                     | Rev                     | Reference |       |
| EAB/PJR/ST (L-O Fager)                       |         | 2006-05-10               | Е                       |           |       |

## 2.3 Dimensions

Height: 2254 mm
Width: 259 mm
Depth: 99 mm
Weight: 17 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 120 103/7 | 737 977       | Down-tilt kit 0°– 9° |

# 4 Environmental Endurance

According to Basic Specification 4/1029-COA 109 120 Uen.

Operating temperature: low: -55°C

high (dry): +60°C

## 5 Internal Information

Supplier: Kathrein

## 6 Product List

| Product no     | Supplier code |  |
|----------------|---------------|--|
| KRE 101 2007/1 | 1)            |  |
|                |               |  |

1) Consists of: antenna 800 10213 clamps 738 546 (2 pcs)