

Datenblatt / *Datasheet*


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# Low Profile Antenne

## Low Profile Antenna

**MCA 1890 S**  
 Erz-Nr. / Ord. code  
**920 315-001**

### CELLULAR

- Passive Sende-/Empfangsantenne für die Frequenzbereiche GSM 850, GSM 900, GSM 1800, GSM 1900 und UMTS
  - geringe Bauhöhe ca. 30 mm
  - Abdeckung europäischer und US-amerikanischer Cellular-Telefon-Frequenzen
  - Montage auf unterschiedlichsten Oberflächen (z.B. Kunststoff, Metall ...)
- *Passive transmitting and reception antenna for the frequencies GSM 850, GSM 900, GSM 1800, GSM 1900 and UMTS*
  - *Low body height ca. 30 mm*
  - *Coverage of European and American cellular phone frequencies*
  - *Mounting on several surfaces (e.g. plastics, metal ...)*



### Änderungen vorbehalten / *Subject to alterations*

#### Technische Daten / *Technical data*

Abmessungen / <i>Dimensions</i>	app.	80 mm x 80 mm x 28 mm
Gehäusematerial / <i>Housing material</i>		ASA+PC
Temperaturbereich / <i>Temperature range</i>		-40 - +80°C / -40 - +176 °F
Schutzklasse / <i>Protection class</i>		IP6k9k (acc. ISO 20653)
<b>CELLULAR</b>		
Frequenzbereich / <i>Frequency range</i>	GSM 850: GSM 900: GSM 1800: GSM 1900: UMTS:	824 - 894 MHz 880 - 960 MHz 1710 - 1880 MHz 1850 - 1990 MHz 1920 - 2170 MHz
Impedanz / <i>Impedance</i>		50 Ohm
VSWR		typ. ≤ 2,0
Gewinn / <i>Gain</i>		typ. 0 dBi <sup>1)</sup>
Polarisation / <i>Polarization</i>		linear, vertikal / <i>linear, vertical</i>
Belastbarkeit / <i>Load capacity</i>	min.	8 W gepulst, <i>pulsed acc. GSM standard</i>
Kabeltyp / <i>Cable type</i>		RG 174 low loss
Kabellänge / <i>Cable length</i>		1000 +10 mm <sup>2)</sup>
Anschluss / <i>Connector</i>		SMA male straight <sup>2)</sup>

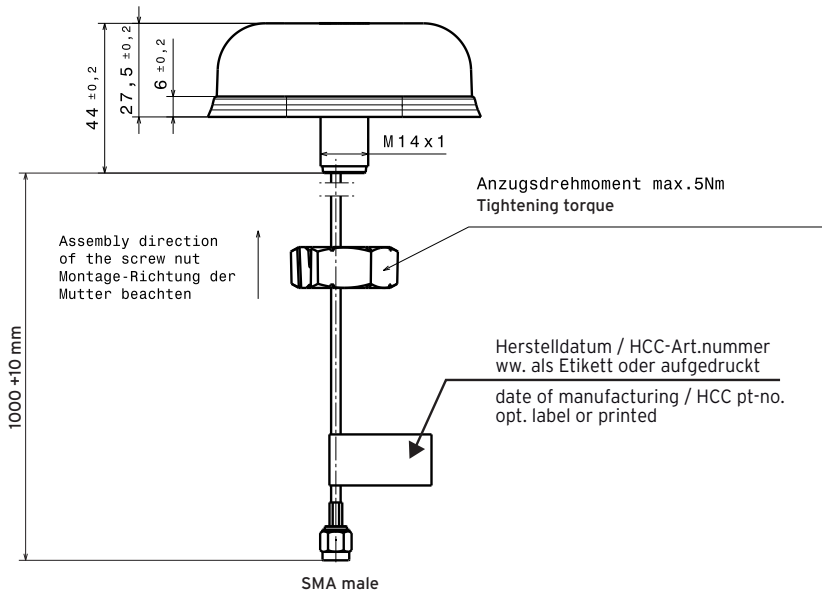
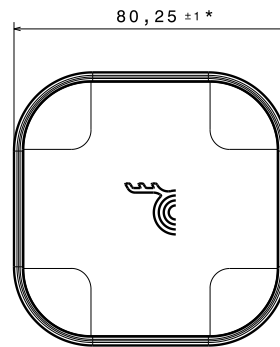
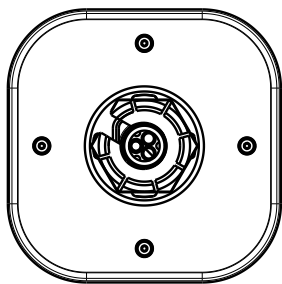
1) dBi: gemessen gegenüber Isotropen-Strahler / *referenced to an isotropic radiator*

2) andere Ausführungen auf Anfrage / *other types on request*

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**Technische Zeichnungen**  
**Technical drawings**



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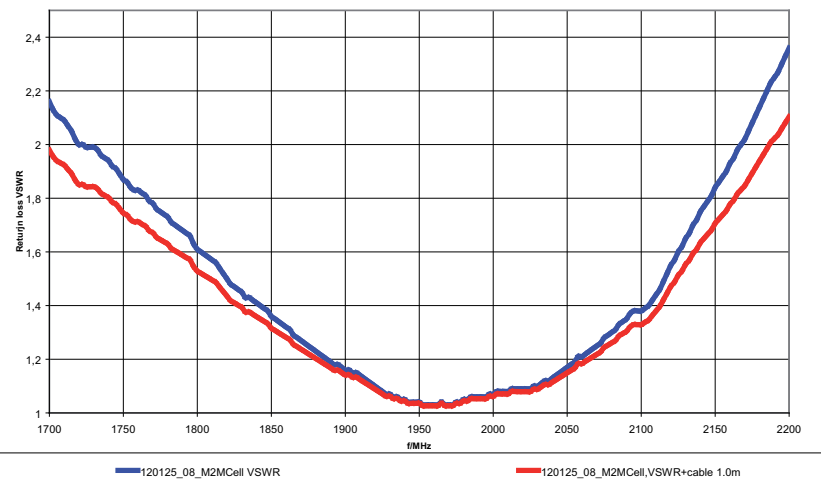
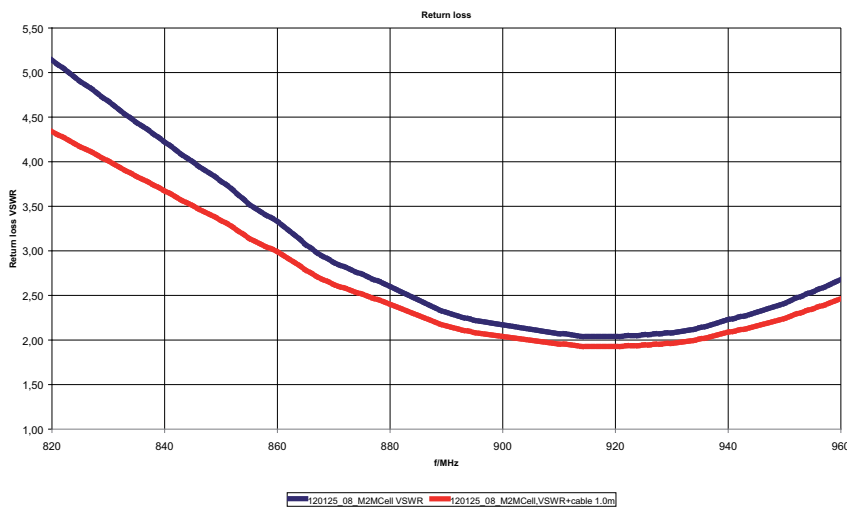
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Änderungen vorbehalten / Subject to alterations

Standard	GSM/AMPS	GSM	GSM/DCS	GSM/PCS	UMTS/3G
Band (MHz)	850	900	1800	1900	2100
Frequency (MHz)	824-896	880-960	1710-1880	1850-1990	1920-2170
Return Loss (dB)					
Cable length (m) 0,2	-4,7	-8,7	-12,6	-22,6	-15,9
Cable length (m) 1,0	-5,4	-9,3	-13,6	-23,6	-17,0
Efficiency (%)					
Cable length (m) 0,2	19,00%	47,60%	87,00%	79,00%	79,40%
Cable length (m) 1,0	16,30%	40,80%	69,71%	63,02%	62,23%
Gain (dBi)					
Cable length (m) 0,2	-3,4	0,7	3,3	2,2	-0,6
Cable length (m) 1,0	-4,1	0,1	2,3	1,2	-1,6

**Antennendiagramme**  
**Antenna diagrams**

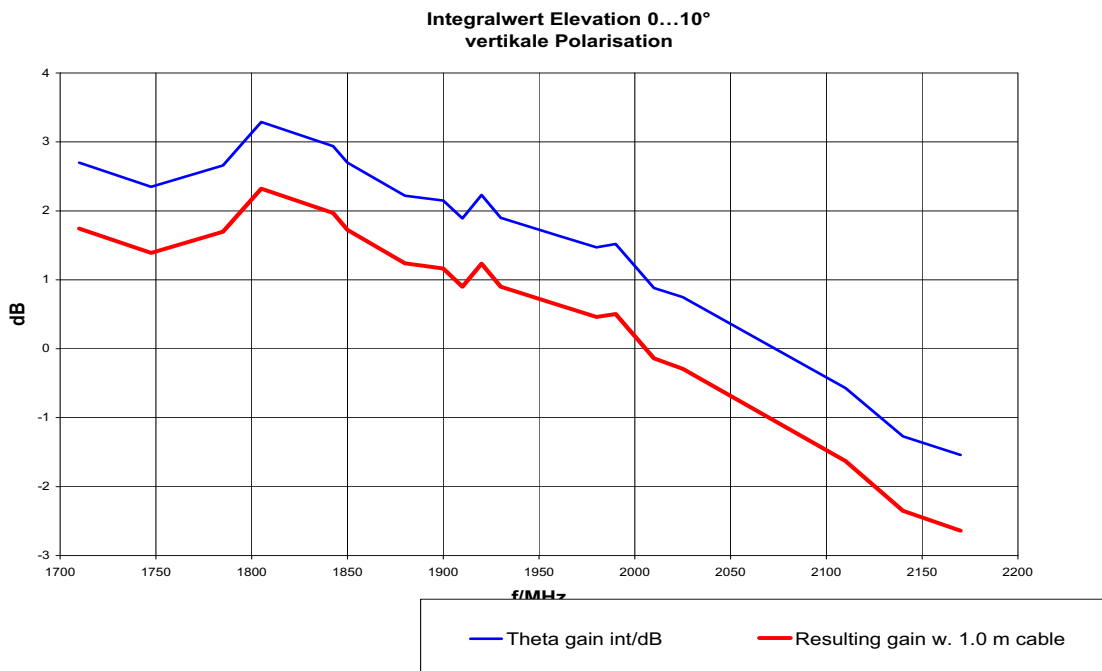
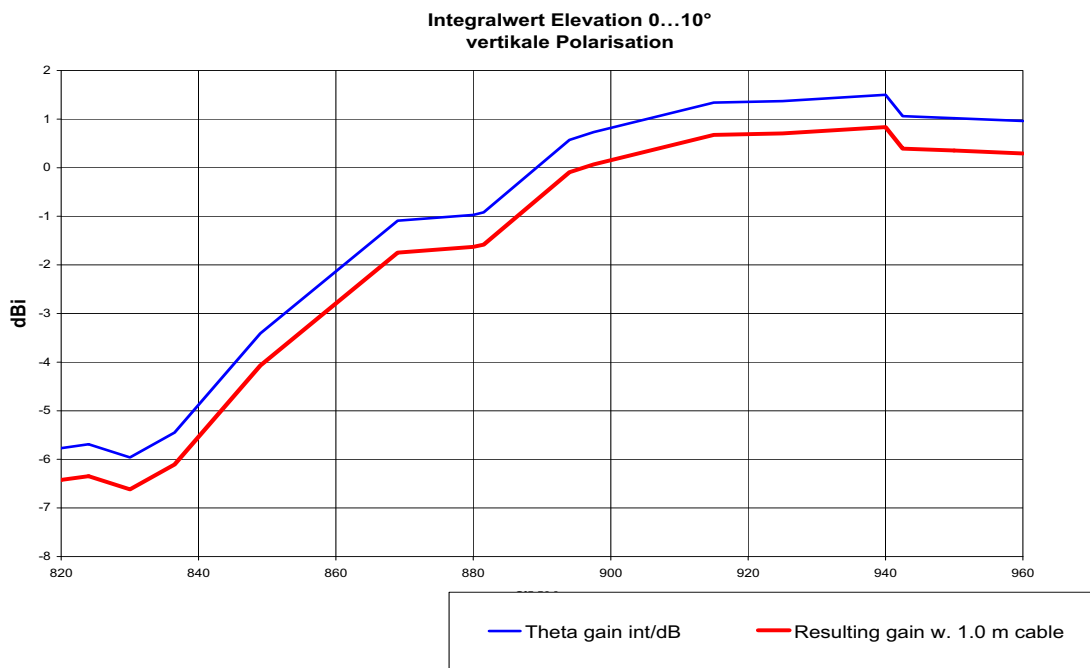
Typisches VSWR / Typical VSWR



Änderungen vorbehalten / Subject to alterations

**Antennendiagramme**  
**Antenna diagrams**

Integraler Pegel / Integral level



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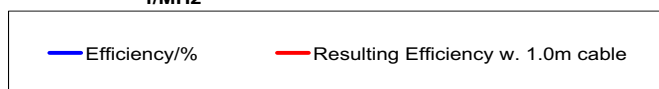
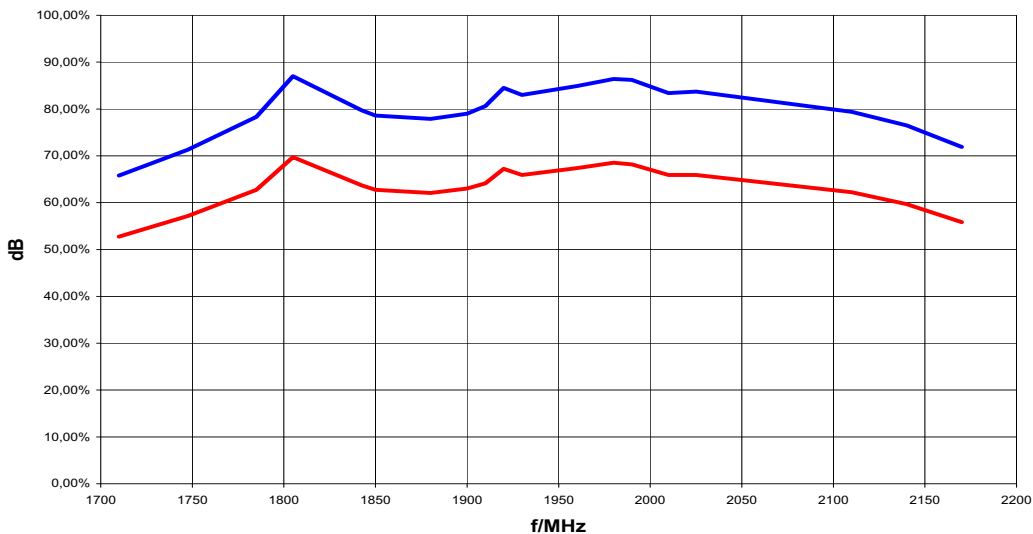
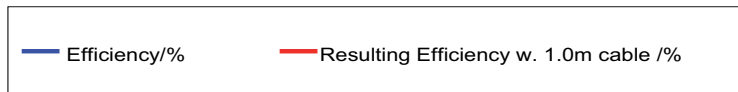
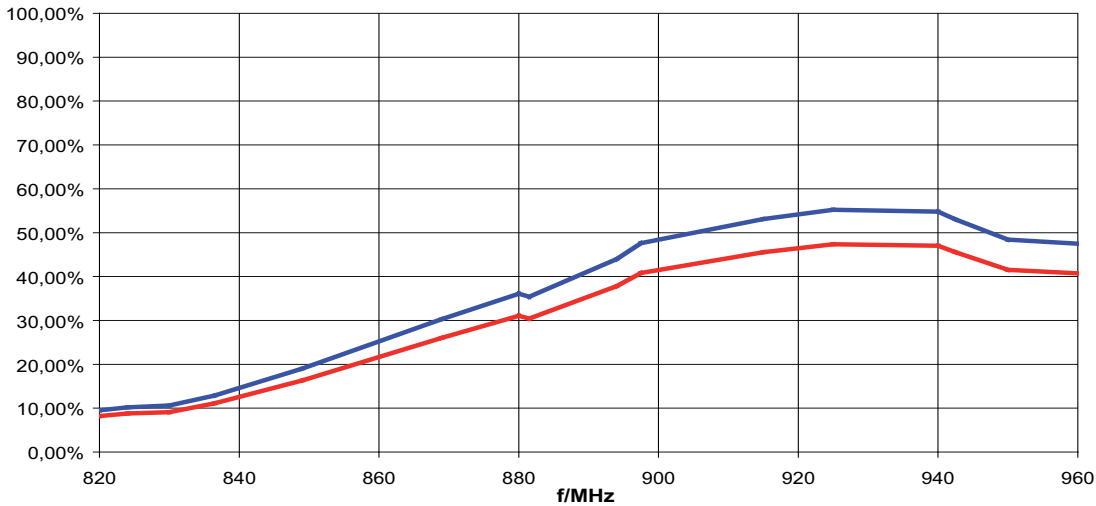
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**Antennendiagramme**  
**Antenna diagrams**

Wirkungsgrad / Efficiency



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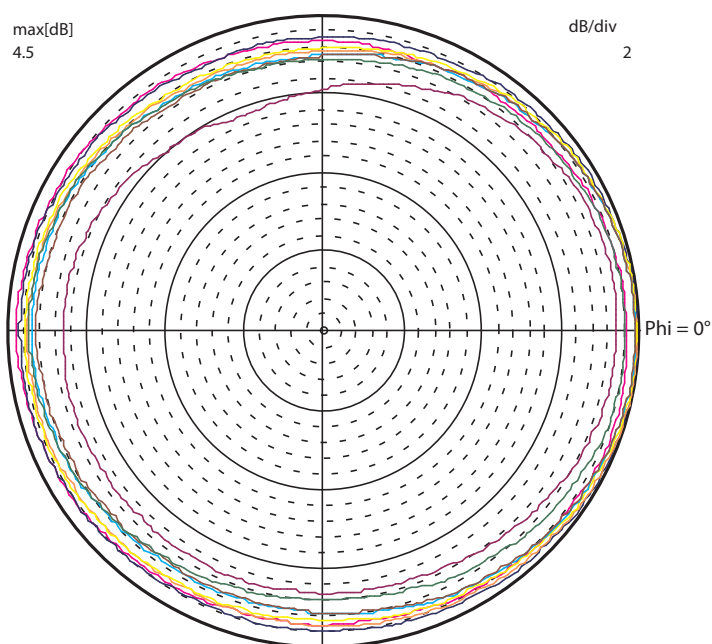
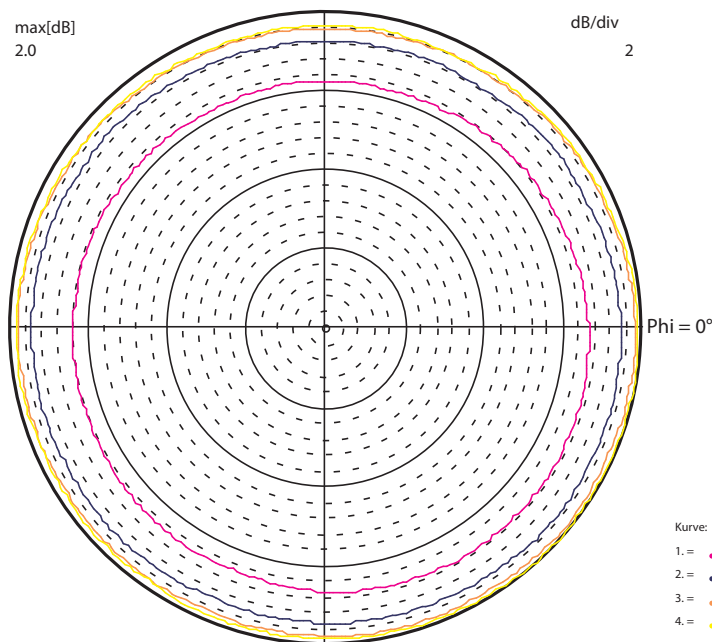
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**Antennendiagramme**  
**Antenna diagrams**

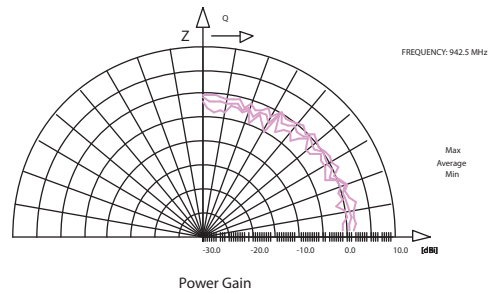
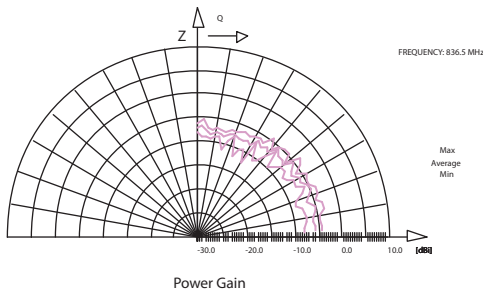
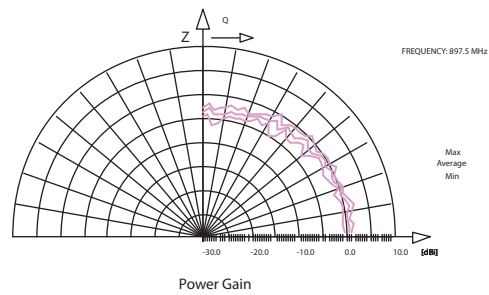
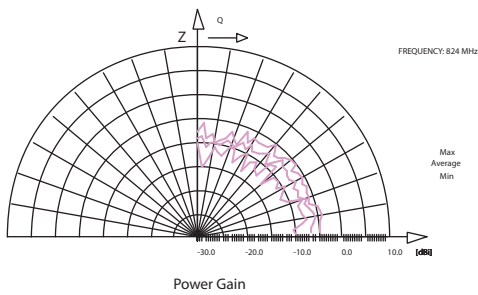
Typisches Strahlungsdiagramm (H-Ebene)  
*Typical radiation pattern (H-plane)*



Änderungen vorbehalten / *Subject to alterations*

**Antennendiagramme**  
**Antenna diagrams**

Typisches Strahlungsdiagramm (V-Ebene)  
*Typical radiation pattern (V-plane)*



Änderungen vorbehalten / *Subject to alterations*

**Antennendiagramme**  
**Antenna diagrams**

Typisches Strahlungsdiagramm (V-Ebene)  
*Typical radiation pattern (V-plane)*

