

# Spezifikation für Freigabe / specification for release

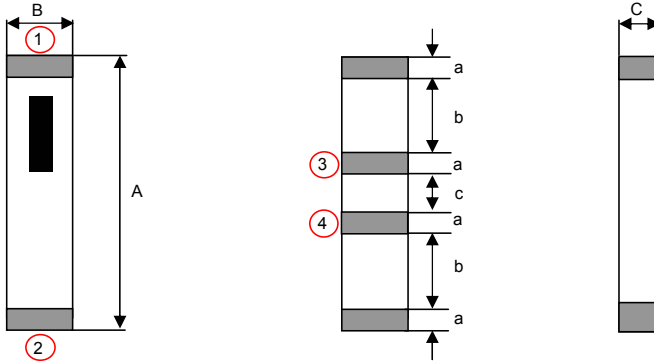
Kunde / customer : \_\_\_\_\_  
 Artikelnummer / part number : **7488912455** LF  
 Bezeichnung : **Multilayer Dual-Band Chip Antenne WE-MCA**  
 description : **Multilayer Dual-Band Chip Antenna WE-MCA**



DATUM / DATE : 2004-10-11

## A Mechanische Abmessungen / dimensions:

size	<b>8,5 x 1,6</b>	
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A	<b>8,5 ± 0,2</b>	mm
B	<b>1,6 ± 0,2</b>	mm
C	<b>1,2 +0,1/-0,2</b>	mm
a	<b>0,51 ± 0,15</b>	mm
b	<b>2,64 ± 0,15</b>	mm
c	<b>1,18 ± 0,15</b>	mm
①	<b>NC</b>	
②	<b>NC</b>	
③	<b>Feeding Point for Low Band</b>	
④	<b>Feeding Point for High Band</b>	

## B Elektrische Eigenschaften / electrical properties:

Eigenschaften / properties	Wert / value		Wert / value	Einheit / unit	tol.
Frequenzbereich / frequency range	<b>2400 ~ 2500</b>		<b>4900 ~ 5875</b>	MHz	
VSWR	<b>2,2</b>		<b>2,2</b>		<b>max.</b>
Impedanz / impedance	<b>50</b>		<b>50</b>	Ω	
Antennengewinn / peak gain	<b>1 (XZ-V)</b>		<b>-1,5 (YX-V)</b>	dBi	<b>typ.</b>
Antennengewinn / average gain	<b>-2,5 (XZ-V)</b>		<b>-2,5 (YX-V)</b>	dBi	<b>typ.</b>

## C Abbildung/ appearance:

## D Prüfgeräte / test equipment:

Agilent E5071A	
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## E Testbedingungen / test conditions:

Luftfeuchtigkeit / humidity:	50 ~ 70%
Umgebungstemperatur / temperature:	20°C ~ 25°C

## F Werkstoffe & Zulassungen / material & approvals

Basismaterial / base material:	Keramik / ceramic
Kontakt Material / contact plating:	Ag + Ni + Sn

## G Eigenschaften / general specifications:

Betriebstemp. / operating temperature:	-40°C ~ +85°C
Lagerbedingung / storage conditions:	15°C ~ 35°C 45 ~ 75% RH
Leistung/ power capacity:	3 W max.

Freigabe erteilt / general release:	<b>Kunde / customer</b>		
Datum / date	Unterschrift / signature		
	<b>Würth Elektronik</b>		
Geprüft / checked	Kontrolliert / approved	AWe	Version 1
		Name	Änderung / modification
			Datum / date

### Würth Elektronik eiSos GmbH & Co.KG

D-74638 Waldenburg · Max-Eyth-Str. 1 · Germany · Telefon (+49) (0) 7942 - 945 - 0 · Telefax (+49) (0) 7942 - 945 - 400  
<http://www.we-online.de>

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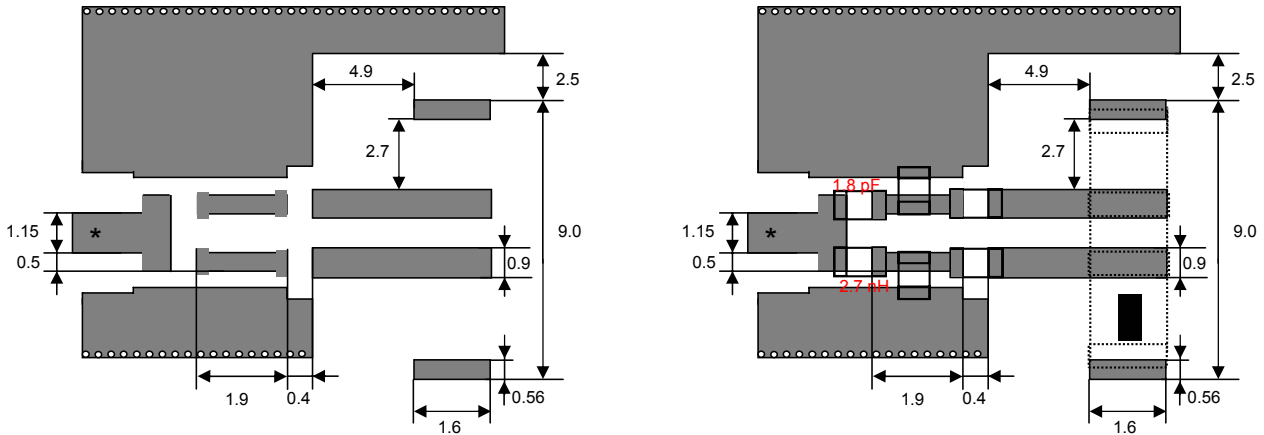
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## H Lötpadempfehlung / solder pads:

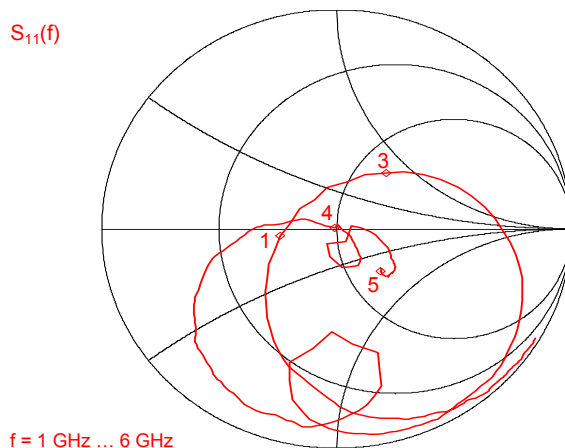
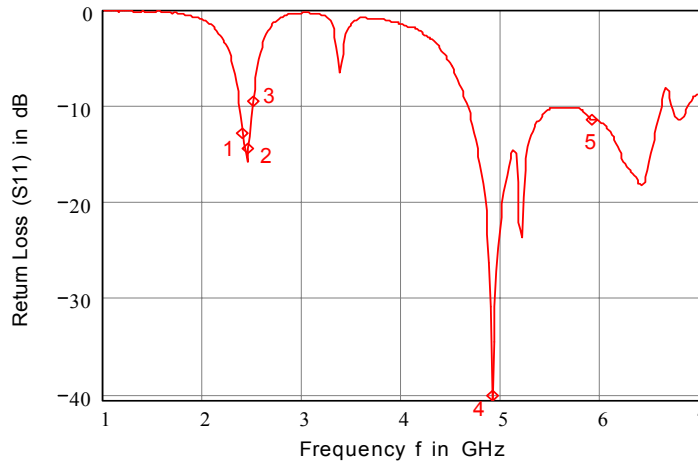
With Matching Circuit:  
 Matching Circuit is recommended



\*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.  
 (Matching circuit and component values will be different, depending on PCB layout)

## K Messdiagramme/ measuring diagrams:

With Matching Circuit:



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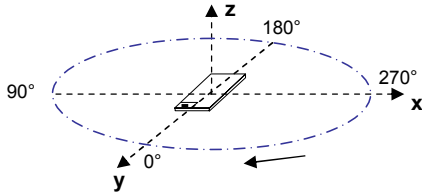
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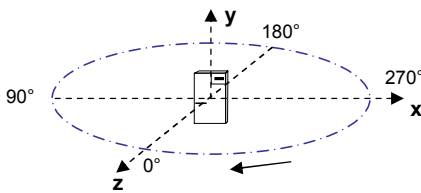
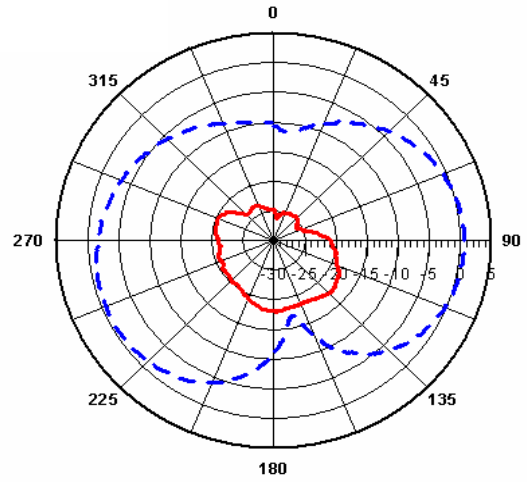
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## L Richtdiagramme / radiation patterns:



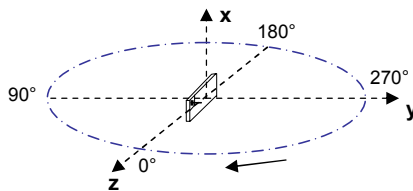
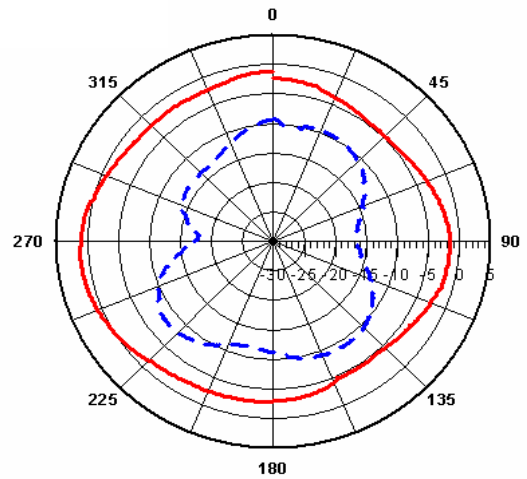
XY-cut scanning direction

XY cut @ 2.45 GHz  
 — Vertical  
 - - - Horizontal



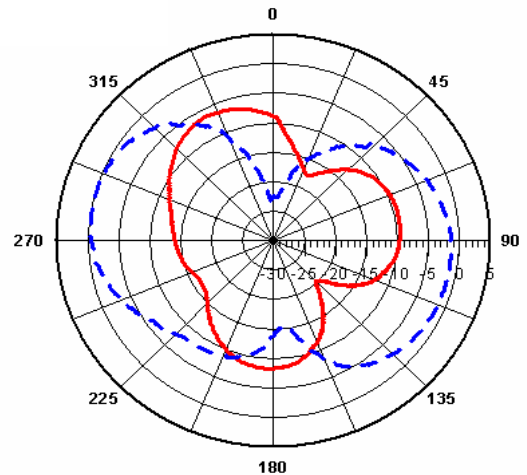
XZ-cut scanning direction

XZ cut @ 2.45 GHz  
 — Vertical  
 - - - Horizontal



YZ-cut scanning direction

YZ cut @ 2.45 GHz  
 — Vertical  
 - - - Horizontal



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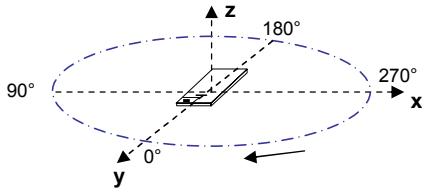
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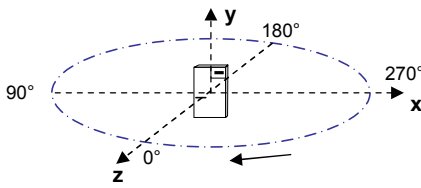
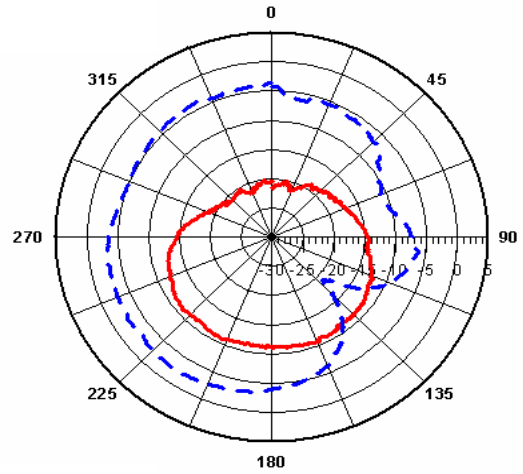
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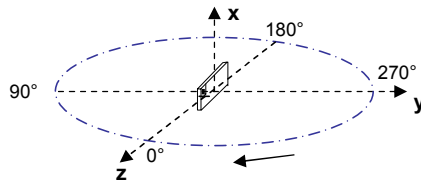
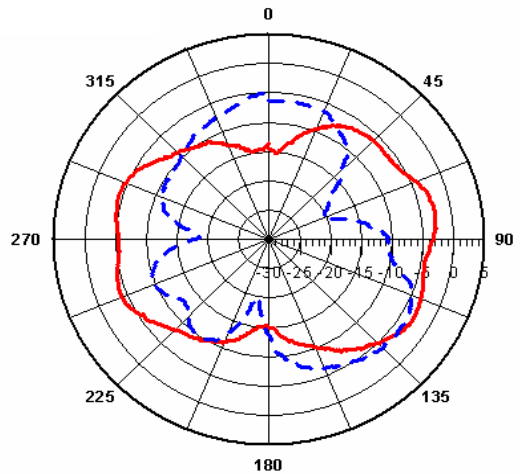
XY-cut scanning direction

XY cut @ 5.4 GHz  
— Vertical  
- - - Horizontal



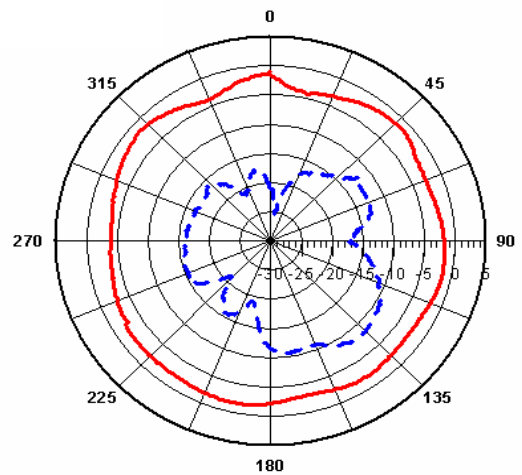
XZ-cut scanning direction

XZ cut @ 5.4 GHz  
— Vertical  
- - - Horizontal



YZ-cut scanning direction

YZ cut @ 5.4 GHz  
— Vertical  
- - - Horizontal



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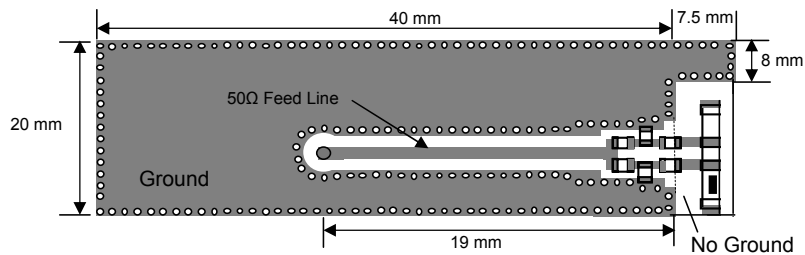
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## M Testboard / evaluation board:



This electronic component is designed and developed with the intention for use in general electronics equipments. Before incorporating the components into any equipments in the field such as aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are especially required or if there is possibility of direct damage or injury to human body. In addition, even electronic component in general electronic equipments, when used in electrical circuits that require high safety, reliability functions or performance, the sufficient reliability evaluation-check for the safety must be performed before use. It is essential to give consideration when to install a protective circuit at the design stage.

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