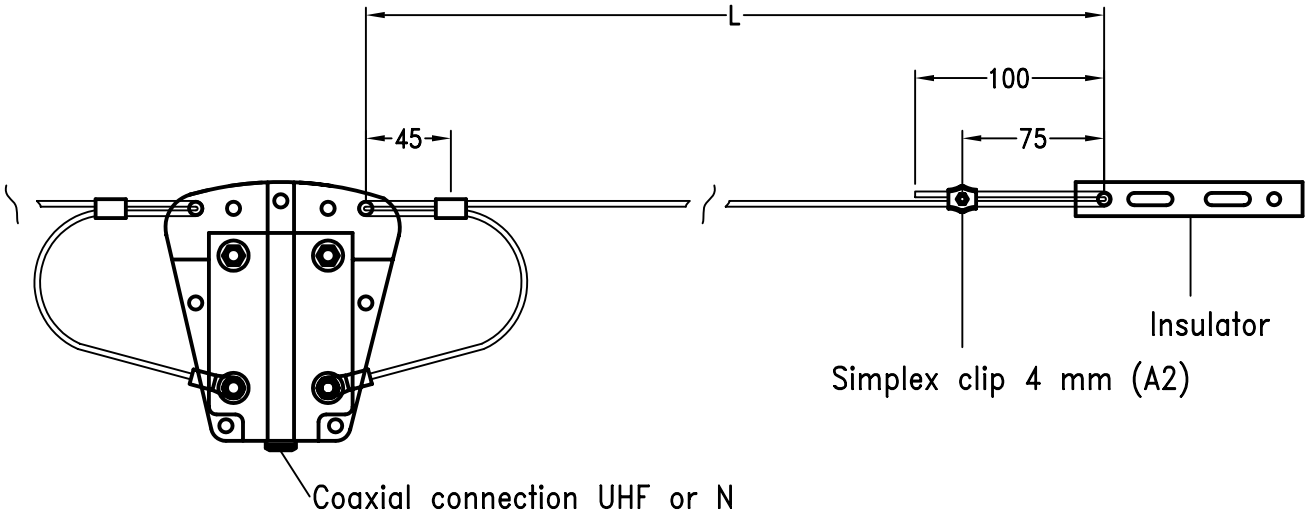
INSTALLATION INSTRUCTIONS 30m Dipole

Antennas for Shortwave

FR 1303-9001

HF-Technik GmbH & Co.KG, Wittenbacher Strasse 12, D-91614 Mönchsroth, Tel: 09853-1003, Fax: 09853-1005, www.hofi.de

INSTALLATION INSTRUCTIONS 30m Dipole



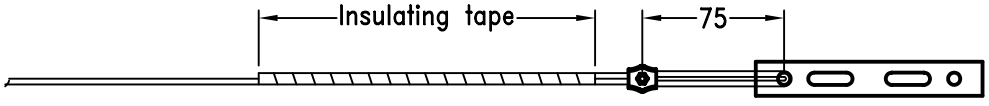
Frequency adjustment

As with the height and ground conductivity, the length 'L' of the Dipole is largely dependent on the angle between the two legs of the Dipole (inverted V) and before installation must be adjusted according to the table on page 3. Pages 4 – 12 show the likely match (SWR) given an angle between the two legs of between 70° and 150° with the dipole at a height of 10m.

To change the centre frequency (10.125 MHz) given the same angle between the two legs, the length L must be adjusted by approx. 0.7mm per kHz.

Example: To change the desired frequency by −100 kHz: 0.7mm x 100 = 70mm. The length L must be increased on both sides by approx. 70mm.

NB: Be very careful when making adjustments to the length of the antenna. Before cutting the wire to its final length, first tie the extra length of wire tightly back on itself using insulating tape and then check the frequency again. But be careful! Don't then immediately cut off this extra length of wire, seeing as this also increases the length of the antenna very slightly. If this extra length is lost, then the dipole will be too short. Work carefully towards determining the correct length. Shortening the wire is easy, whereas increasing its length again is very difficult!



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Installation instruction no. FR 1303-9002 (01.12.2011)	02

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INSTALLATION INSTRUCTIONS 30m Dipole

Height of antenna in m	Angle between legs in °	Length (L) m (20°C)	Change length by mm per kHz	Impedance Z Ohm	SWR
	Center frequency 10,125 MHz				
10	180	–	–	–	–
10	170	–	–	–	–
10	160	–	–	–	–
10	150	6,903	0,7	94,0 ± j0	1,88
10	140	6,915	0,7	91,5 ± j0	1,83
10	130	6,929	0,7	87,5 ± j0	1,75
10	120	6,953	0,7	82,9 ± j0	1,66
10	110	6,670	0,7	76,5 ± j0	1,53
10	100	7,010	0,7	71,7 ± j0	1,43
10	90	7,050	0,6	63,3 ± j0	1,27
10	80	7,091	0,6	57,2 ± j0	1,14
10	70	7,133	0,6	52,0 ± j0	1,04

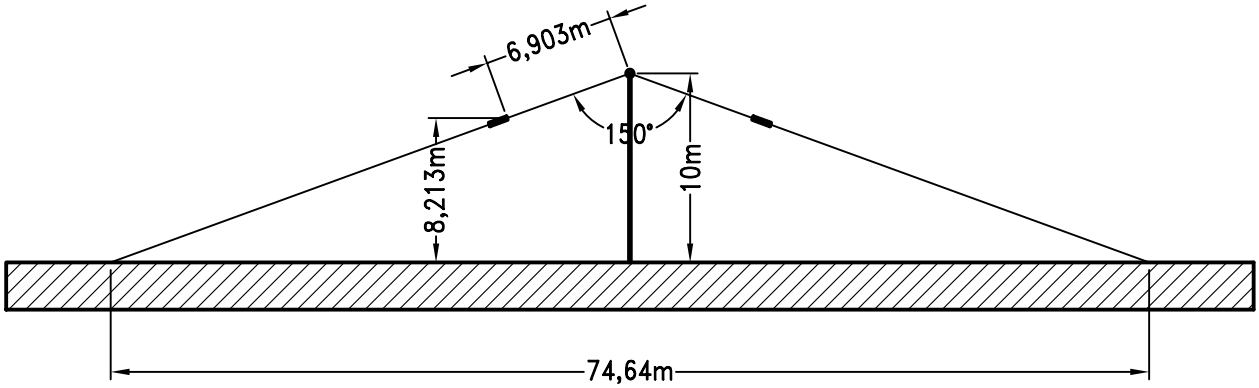
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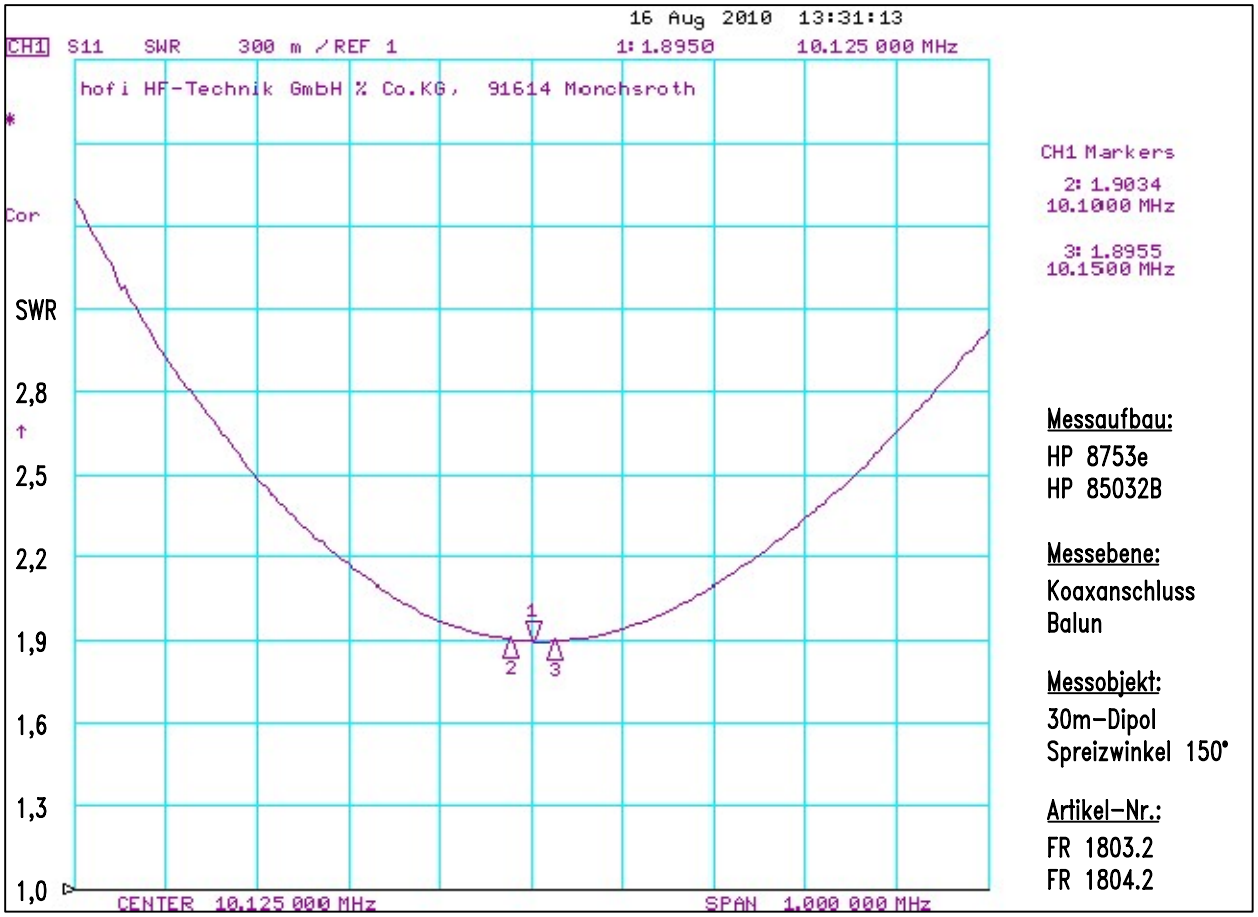
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Article No. FR 1303.x | M 1:1

Installation instruction no. FR 1303-9003 (01.12.2011) | 03

INSTALLATION INSTRUCTIONS 30m Dipole



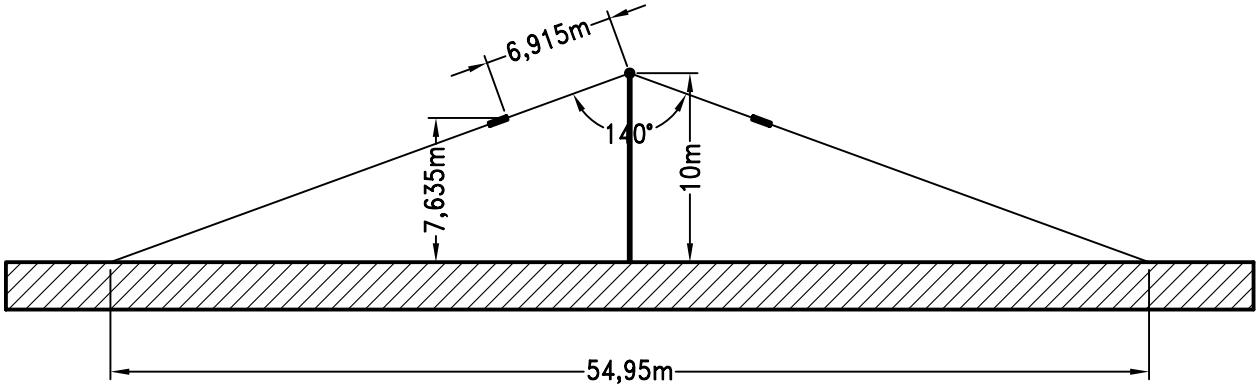


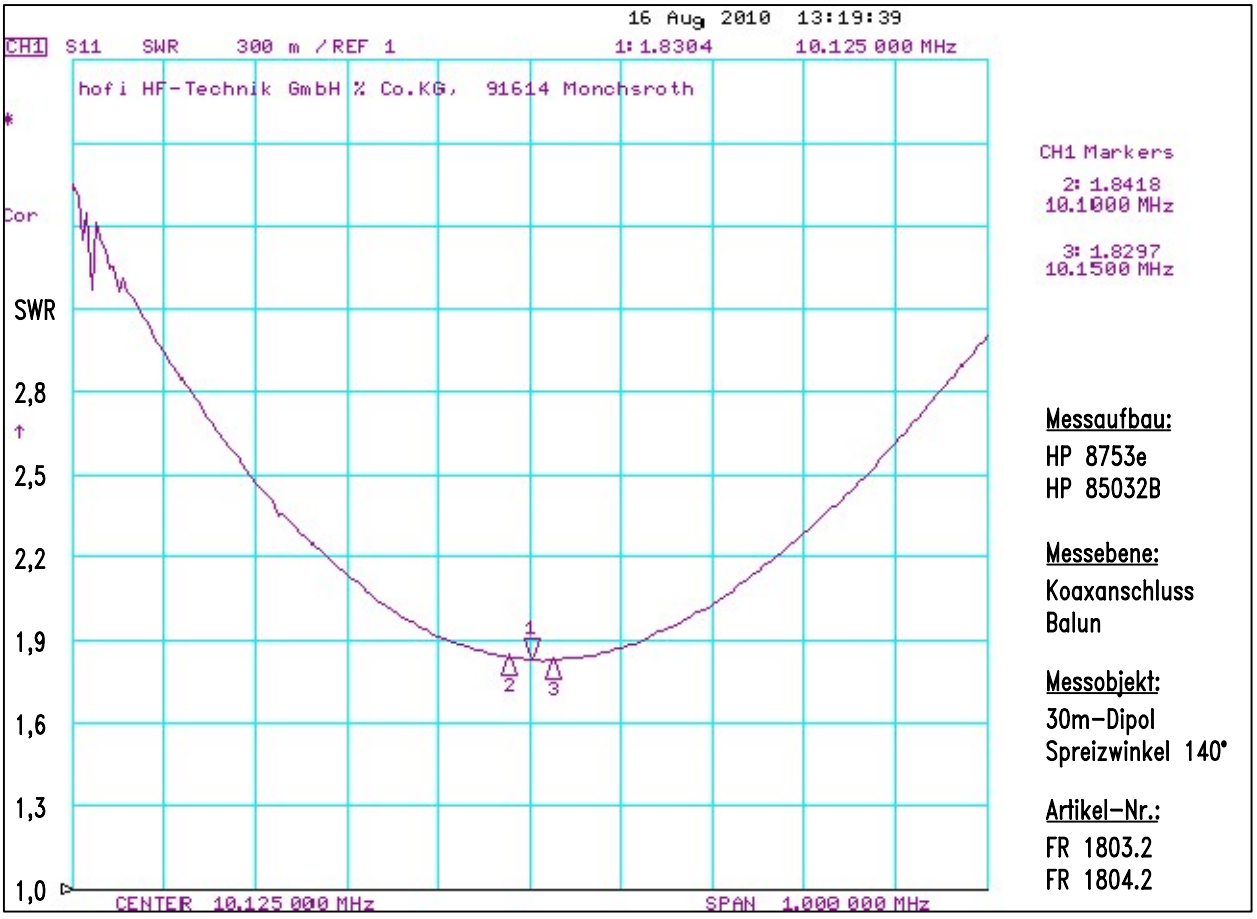
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9004 (01.12.2011)	04

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INSTALLATION INSTRUCTIONS 30m Dipole



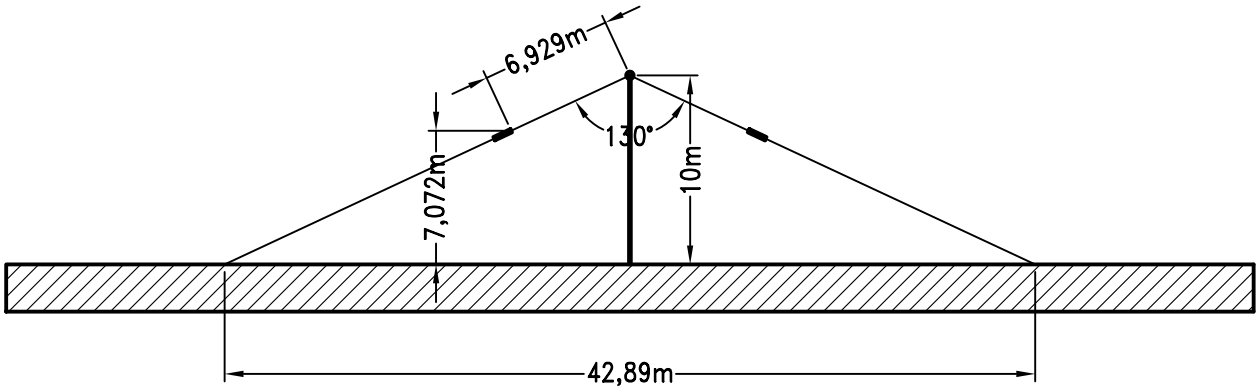


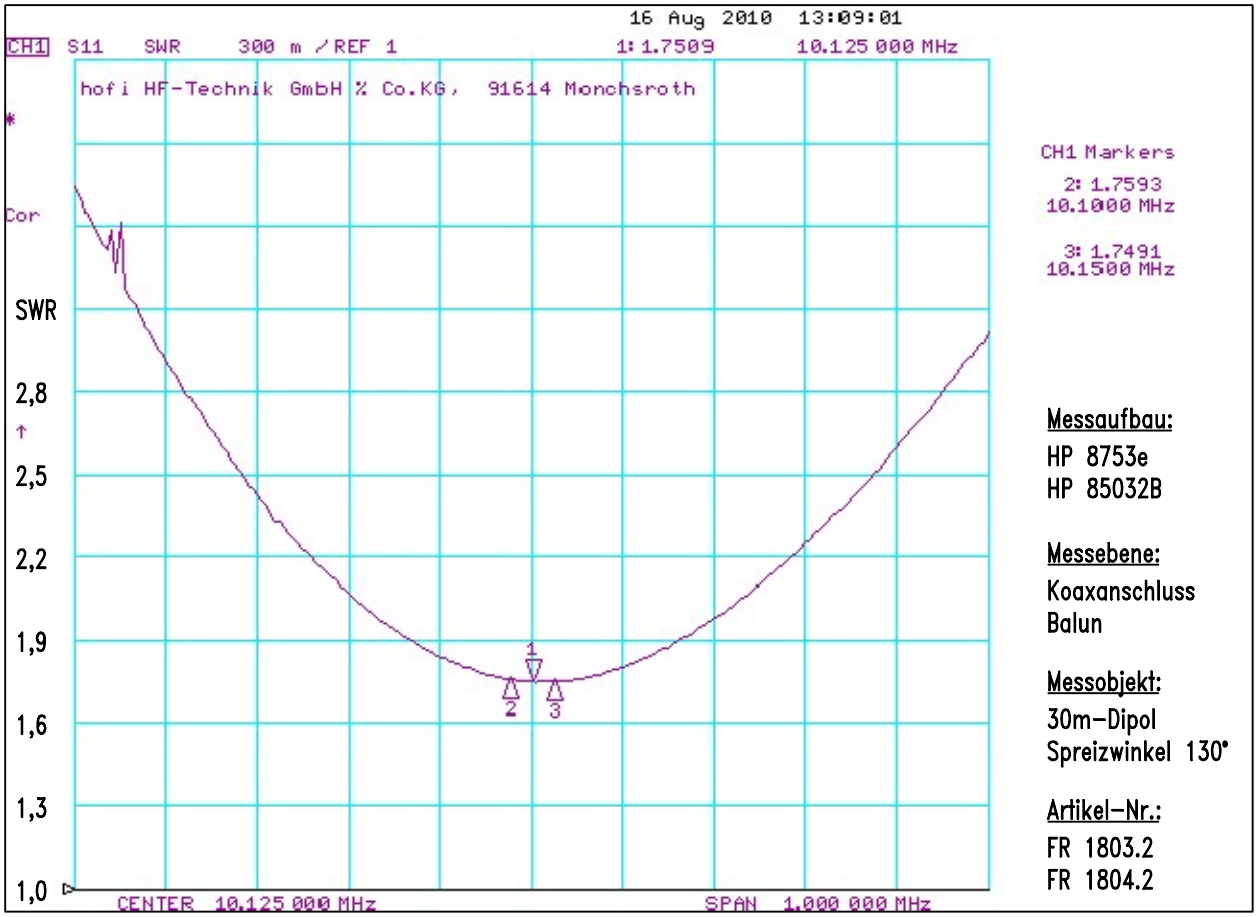
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9005 (01.12.2011)	05

INSTALLATION INSTRUCTIONS 30m Dipole



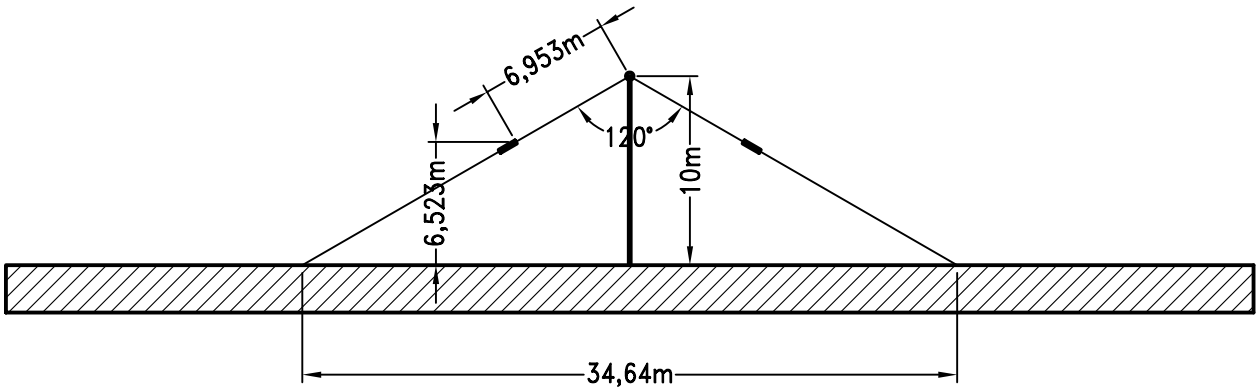


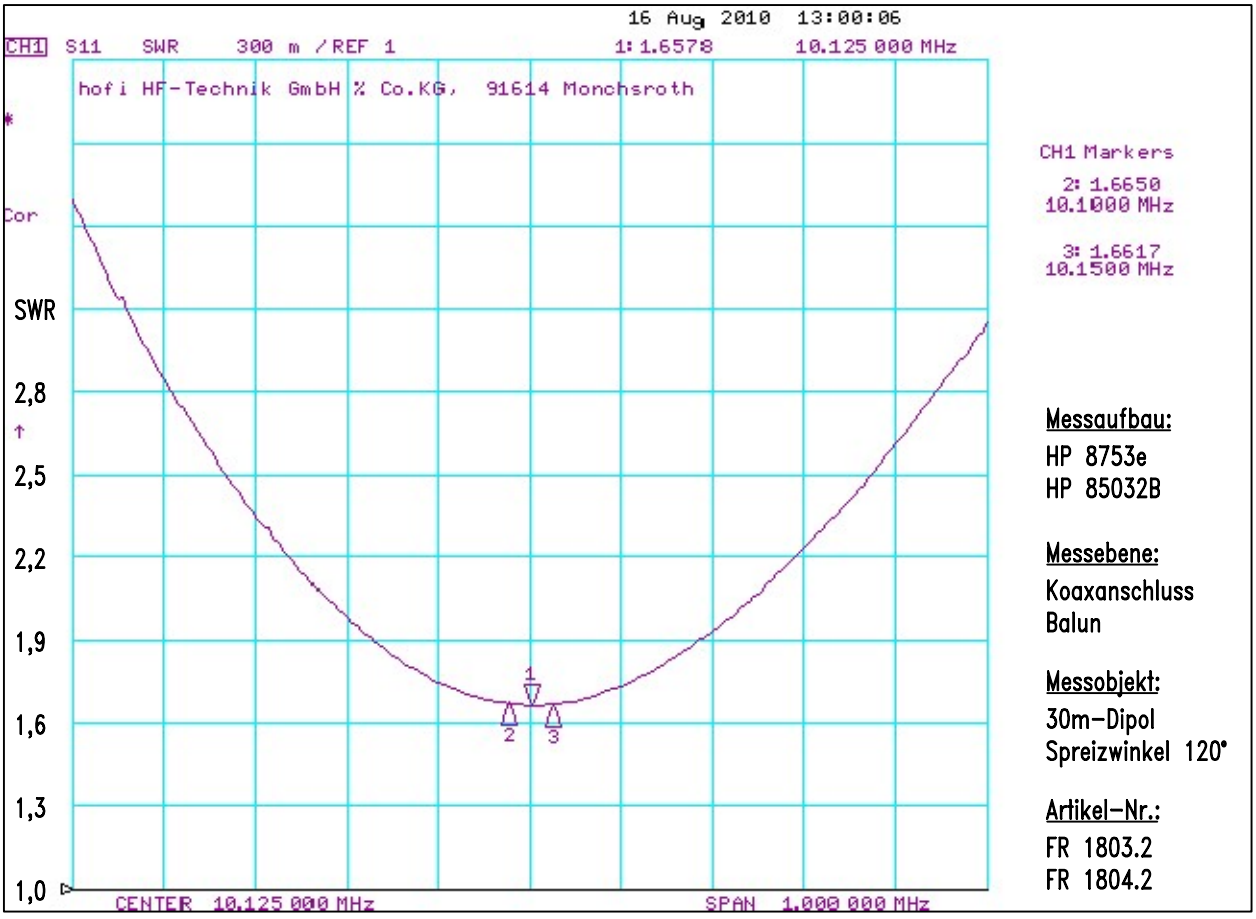
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9006 (01.12.2011)	06

INSTALLATION INSTRUCTIONS 30m Dipole



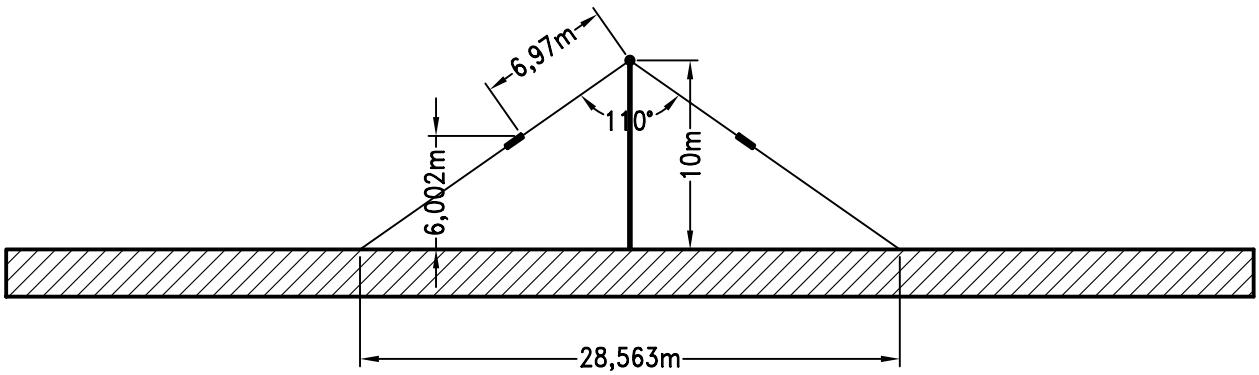


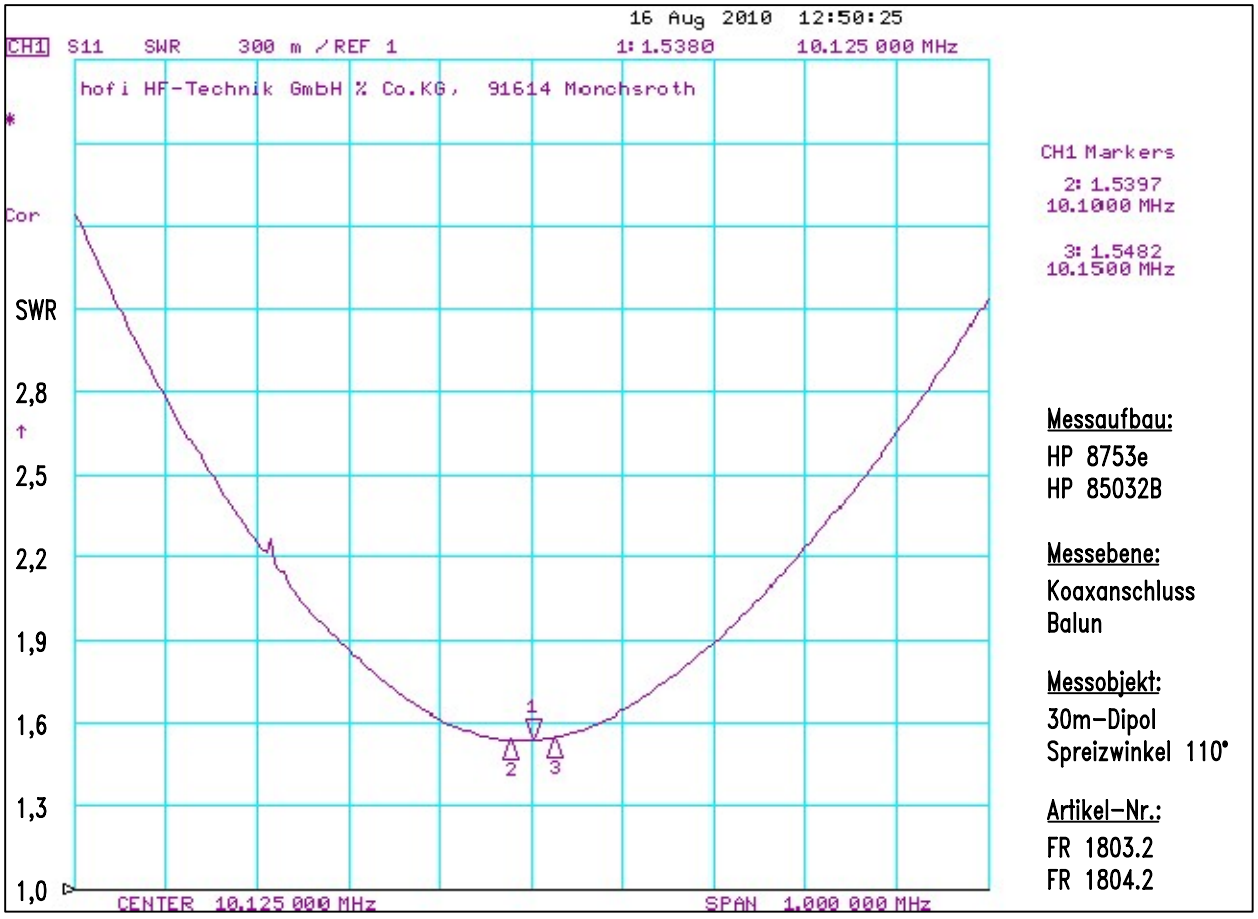
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9007 (01.12.2011)	07

INSTALLATION INSTRUCTIONS 30m Dipole





Messaufbau:
HP 8753e
HP 85032B

Messebene:
Koaxanschluss
Balun

Messobjekt:
30m-Dipol
Spreizwinkel 110°

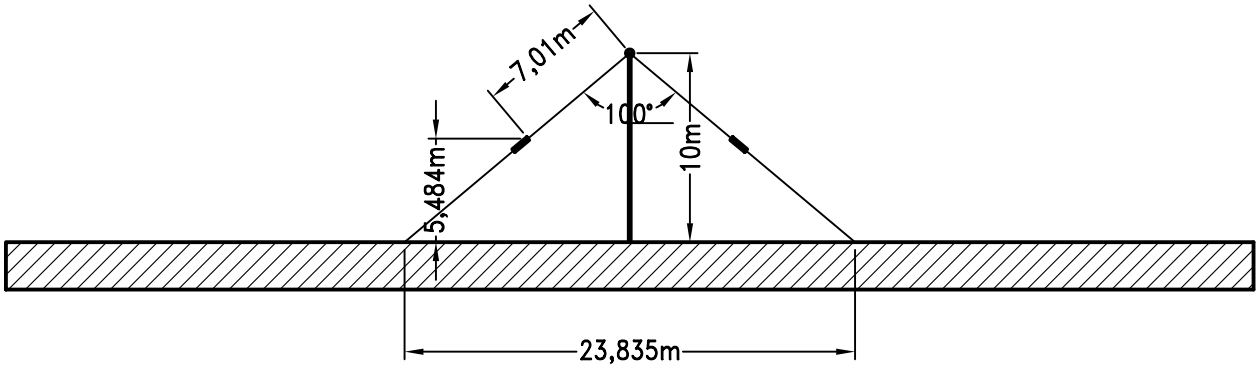
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FR 1803.2
FR 1804.2

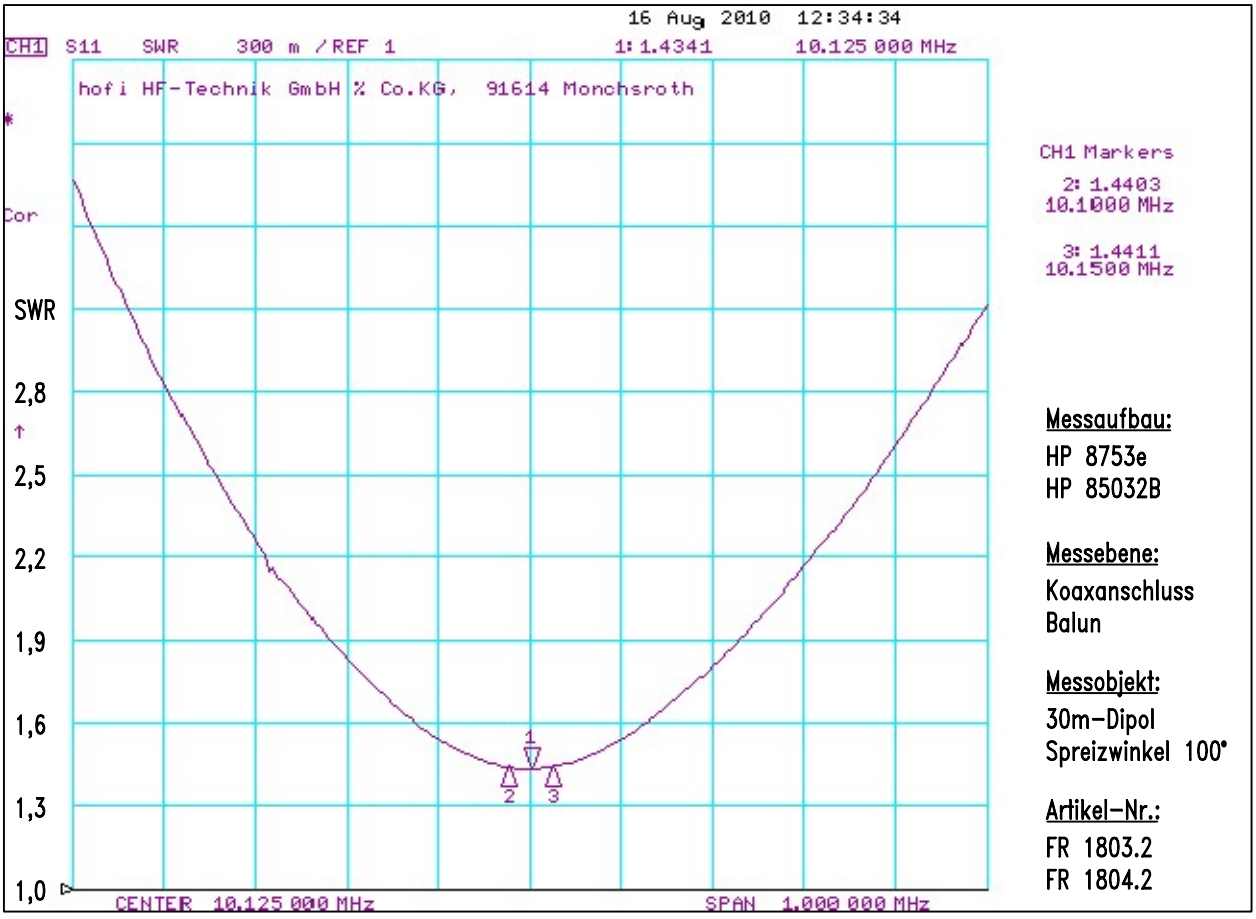
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9008 (01.12.2011)	08

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INSTALLATION INSTRUCTIONS 30m Dipole



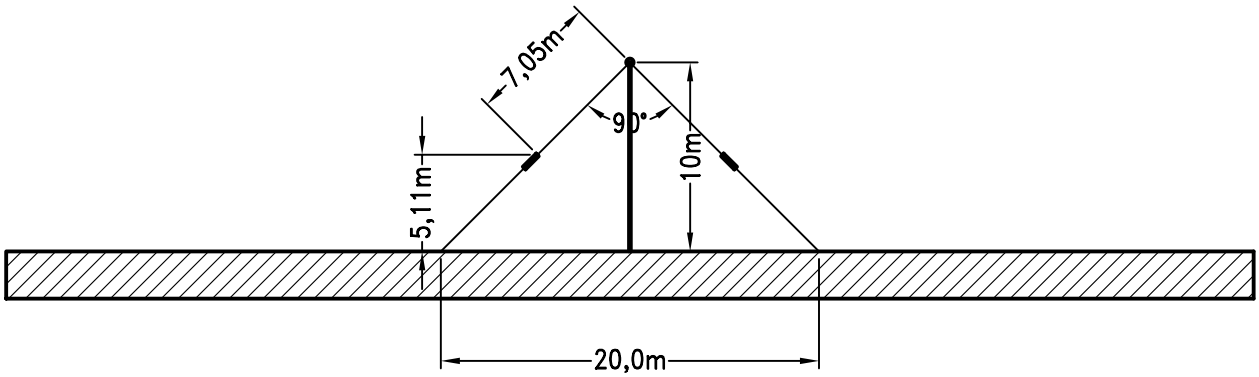


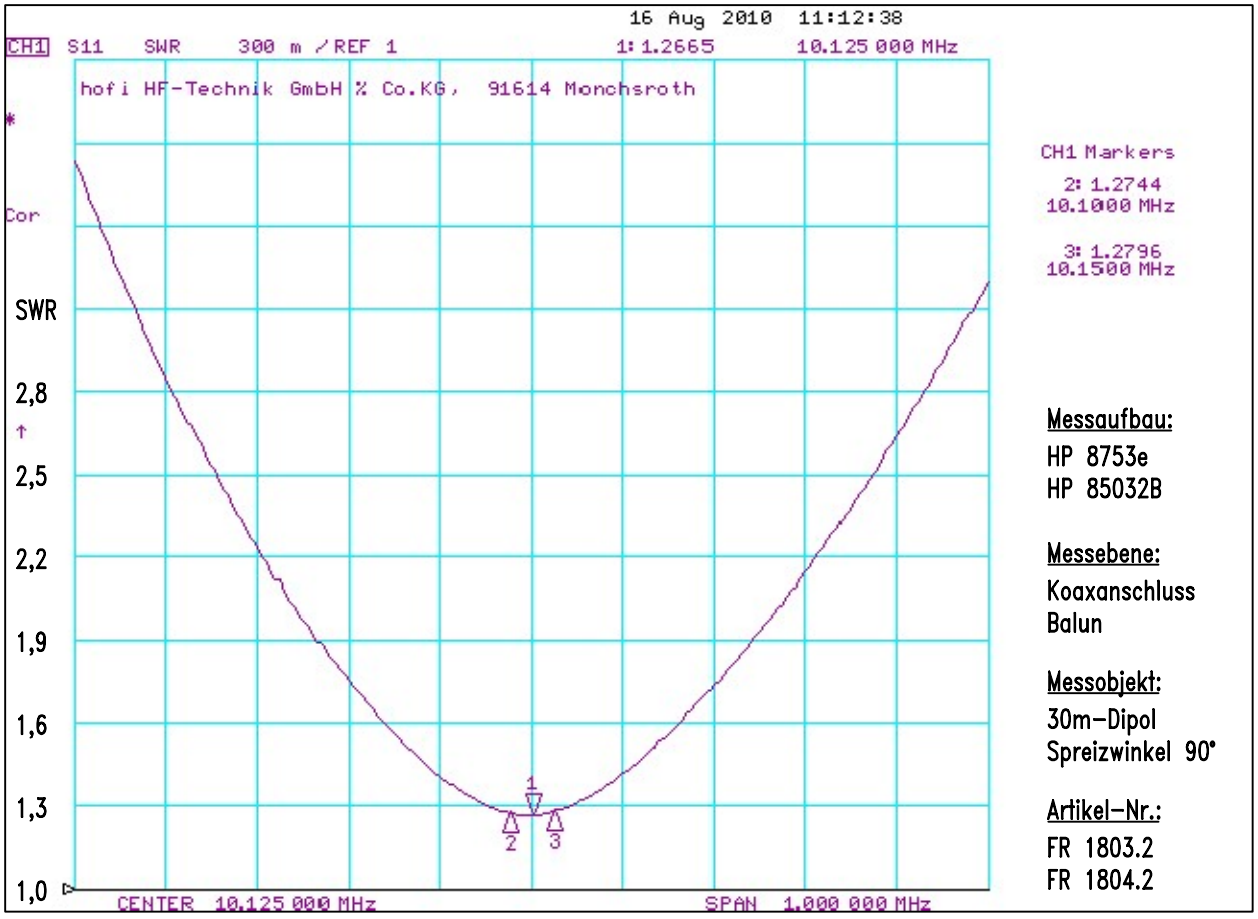
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Article No. FR 1303.x	M 1:400
Installation instruction no. FR 1303-9009 (01.12.2011)	09

INSTALLATION INSTRUCTIONS 30m Dipole





Messaufbau:
HP 8753e
HP 85032B

Messebene:
Koaxanschluss
Balun

Messobjekt:
30m-Dipol
Spreizwinkel 90°

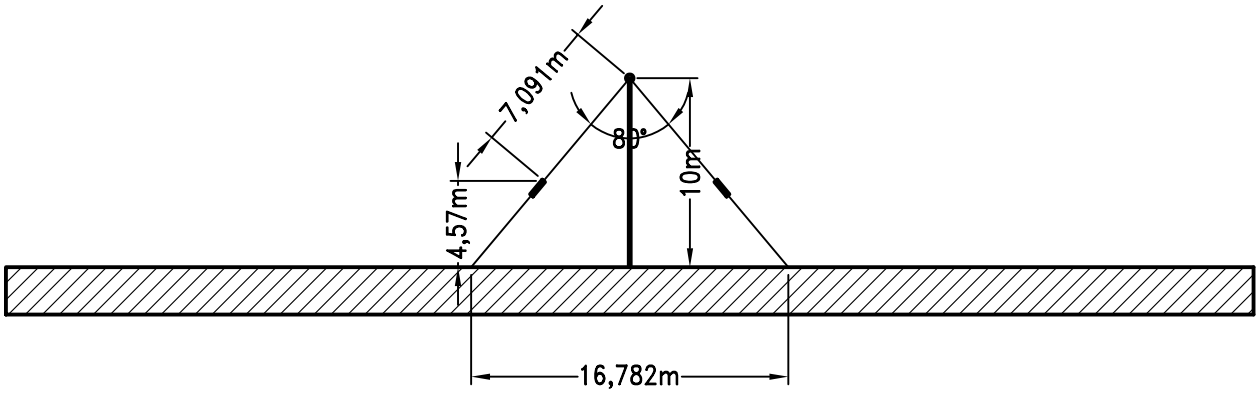
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FR 1803.2
FR 1804.2

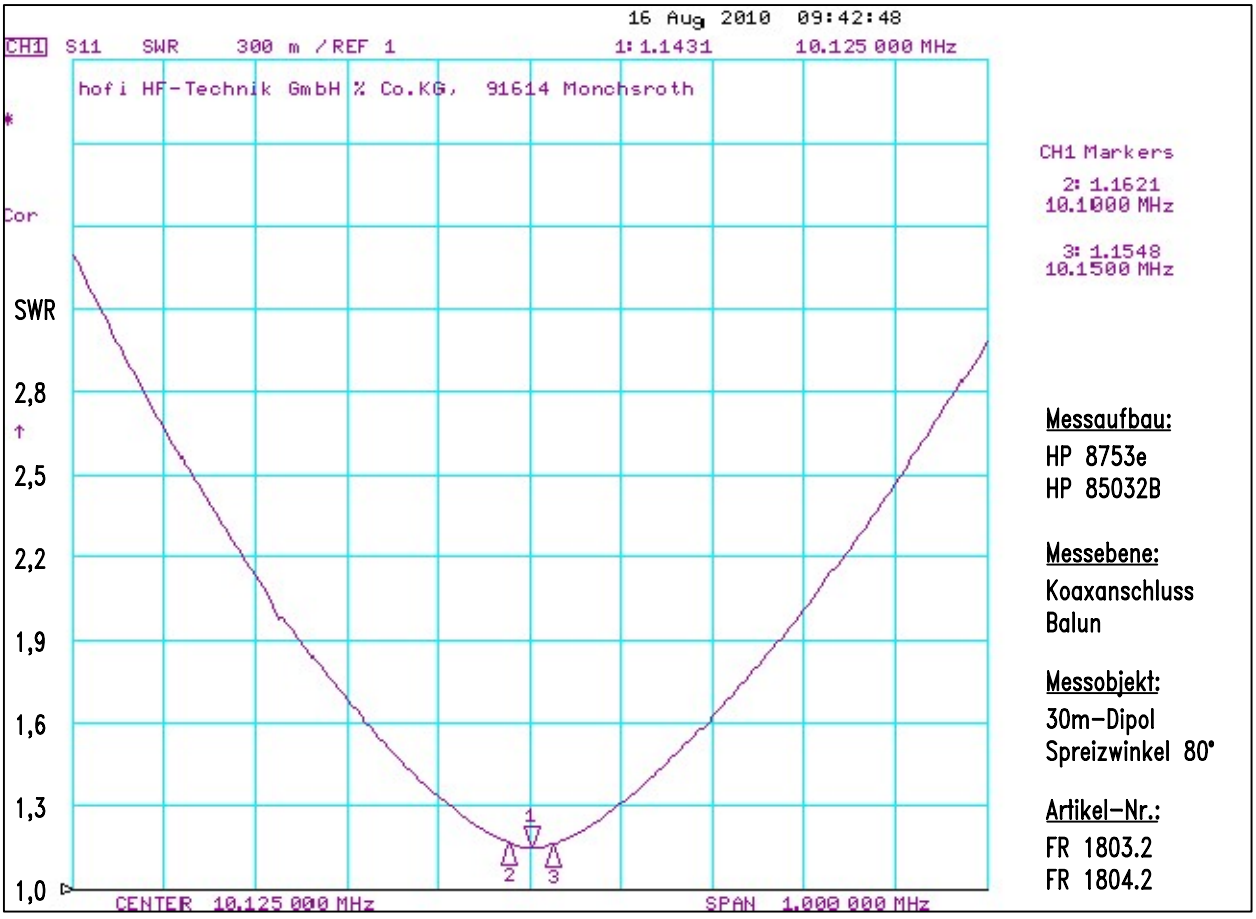
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Installation instruction no. FR 1303-9010 (01.12.2011)	10

INSTALLATION INSTRUCTIONS 30m Dipole



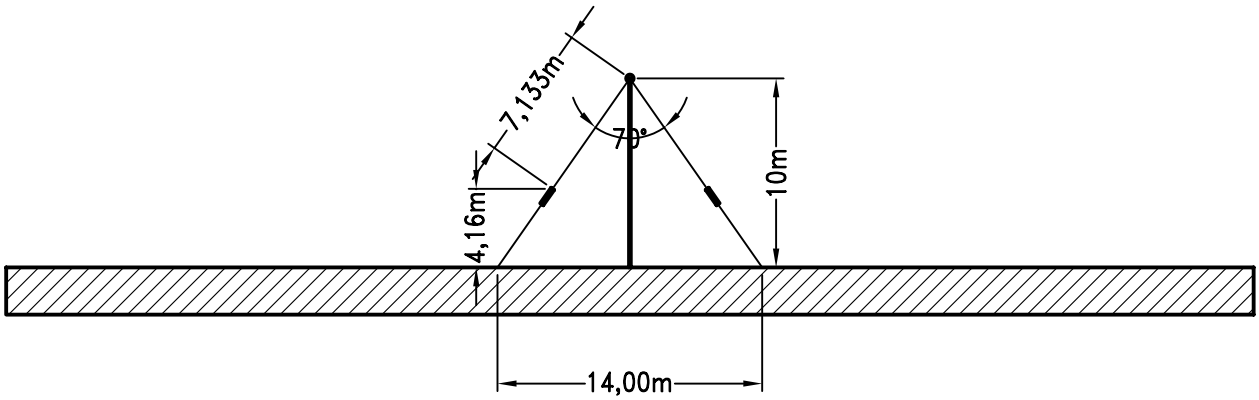


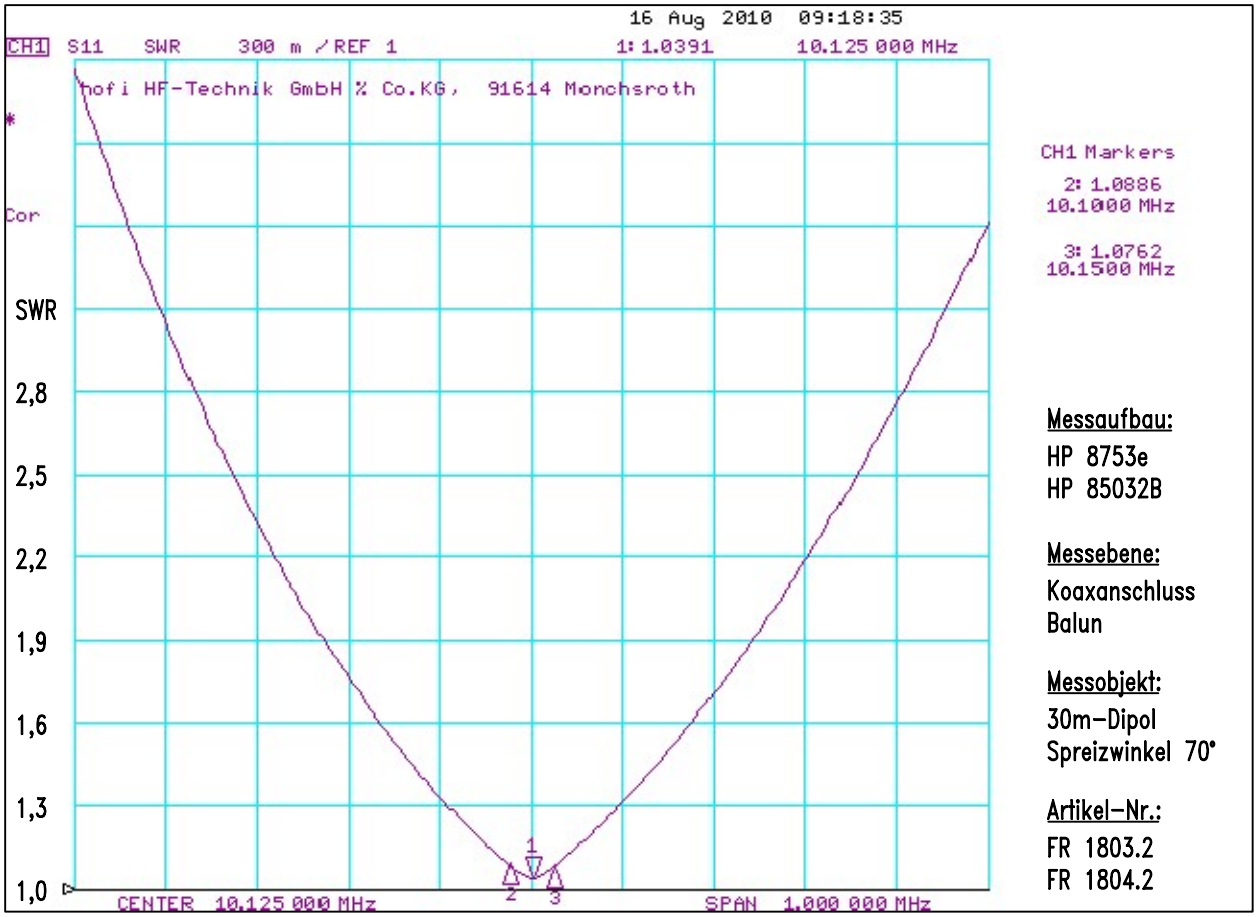
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Installation instruction no. FR 1303-9011 (01.12.2011)	11

INSTALLATION INSTRUCTIONS 30m Dipole





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