

KATHREIN

Professionelle Antennen



UHF Transmitting Antenna

SKIEN

Type No. 765.958

Constructional features see sheet 109

Frequency range 470 ... 790 MHz

Operating channel 24 / 34 / 44

Polarization horizontal

Impedance 50 Ohms

Gain, reference
half wave dipole 12,1 / 12,5 / 12,7 dB

V SWR < 1,05 in the operating channels

Horizontal radiation pattern see sheets 101

Vertical radiation pattern see sheets 102

Max. power rate 2 x 20/1 kW

Input 4 1/2" EIA

Weight

Wind load



KATHREIN-Werke KG
82 ROSENHEIM 2

Date
21.1.92
Sign.
Obereder

UHF Transmitting Antenna
SKIEN

Type No.
765.958

Sheet 111

Technical drawing of a radio mast (M 1-50) showing dimensions and components. The total height is 12000 mm. The mast is divided into sections of 4500 mm, 4500 mm, 2250 mm, and 2500 mm. The top section (4500 mm) contains 6 lightning rods (6 Blitzfangstangen) and a steel top cover with a hatch (Stahl-Abdeckung mit Luke). The second section (4500 mm) contains an inside lamp (Innenleuchte), 4 lightning ropes (4 Blitzableitungen), and a GFK-Einfachtraverse (GRP-traverse). The third section (2250 mm) contains an antenna (Antenne, Superturnstile), a 3 dB-coupler (Richtkoppler), and a GFK-Zylinder (GRP-cylinder) with an inside diameter of 1,58 m. The bottom section (2500 mm) contains a GFK-Leiter (GRP-ladder), a mainsplitter (Hauptverteiler), and a GFK-Innenflansch (GRP-inside flange) with a boltcircle of 1470 mm and 36 screws. The mast is also labeled with 'Ebene bay' and 'M 1-50'.

12000

4500

4500

2250

2500

500

6 Blitzfangstangen
6 lightning rods

Stahl-Abdeckung mit Luke
Steel-top cover with hatch

8.
Innenleuchte
inside lamp

7.
4 Blitzableitungen
4 lightning ropes

6.
GFK-Einfachtraverse
GRP-traverse

5.
Antenne, Superturnstile
antenna

4.
Richtkoppler
3 dB-coupler

3.
GFK-Zylinder, Innen- \varnothing 1,58 m
GRP-cylinder, inside-diam. 1,58 m

2.
Ebene bay

1.
GFK-Leiter, GRP-ladder

Hauptverteiler
mainsplitter

GFK-Innenflansch, Teilkreis- \varnothing 1470,
36 Schrauben
GRP-inside flange, boltcircle 1470,
36 screws

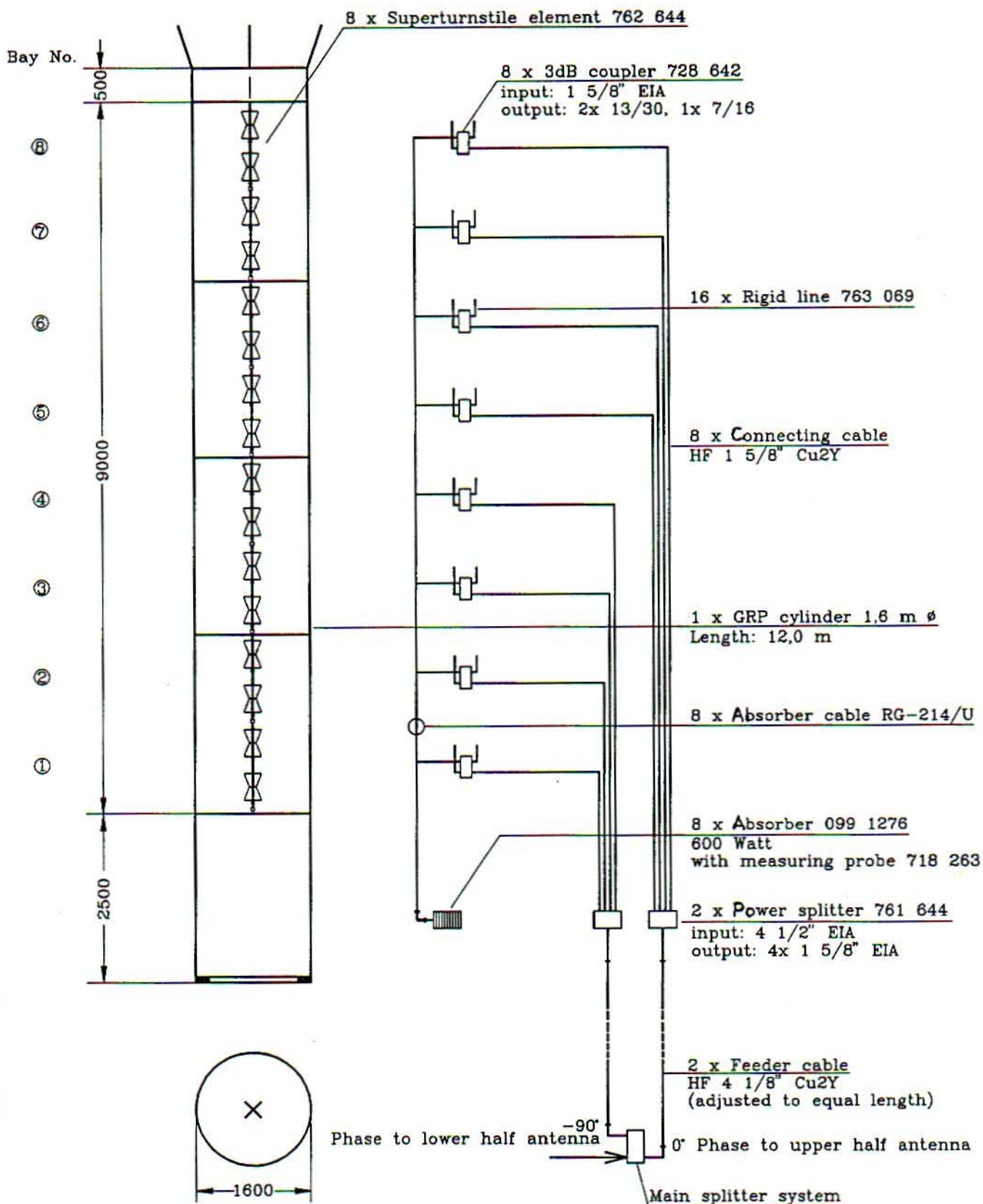
M 1-50

Steigbereich
climbing area

10. APR. 1992

GRP = glass reinforced plastics

				Allgemein- toleranz	Rohgew. %	Oberfl.:	
					Tag	Name	SENDEANTENNE TRANSMITTING ANTENNA SKIEN (NORWEGEN)
			Bearb.	16.01.92	Heinrich Wei		
			Gepr.	27.01.92	Seebacher	<i>SB</i>	
							Masstab 1:100 1:50
				KATHREIN			Blatt 1
				82 Rosenheim 2			
Aus- gabe	Änderung	Tag	Name	f/MHz 470 - 860			



KATHREIN

Day
23. MRZ. 92
Name
Obereder

UHF Transmitting Antenna
SKIEN

Type No.
765 958
sheet: 109

Stück	Kabel Nr.	Phase (655,25MHz)	Gesamt= länge	Kabel Typ	Stecker Typ
1	⑧	125	12.849	HF 1 5/8" Cu2y (914.526)	2x 1 5/8" EIA (092.1163) 1 Stecker durchbohrt- andere Seite markiert mit ANTENNE
1	⑦	60-90	13.036		
1	⑥	-10	13.012		
1	⑤	0-90	13.109		
1	④	-40-180+90	13.157		
1	③	-25-270+90	13.248		
1	②	-40-180+90	13.157		
1	①	0-270+90	13.217		
				RG-214/U (914.541)	2x 7/16 (092.890)
1	⑧		10.000		
1	⑦		9.000		
1	⑥		8.000		
1	⑤		7.000		
1	④		5.500		
1	③		4.500		
1	②		3.500		
1	①		2.500		

KATHREIN

Tag

23.3.92

Name

Obereder

UHF Transmitting Antenna
SKIEN

Typ Nr.

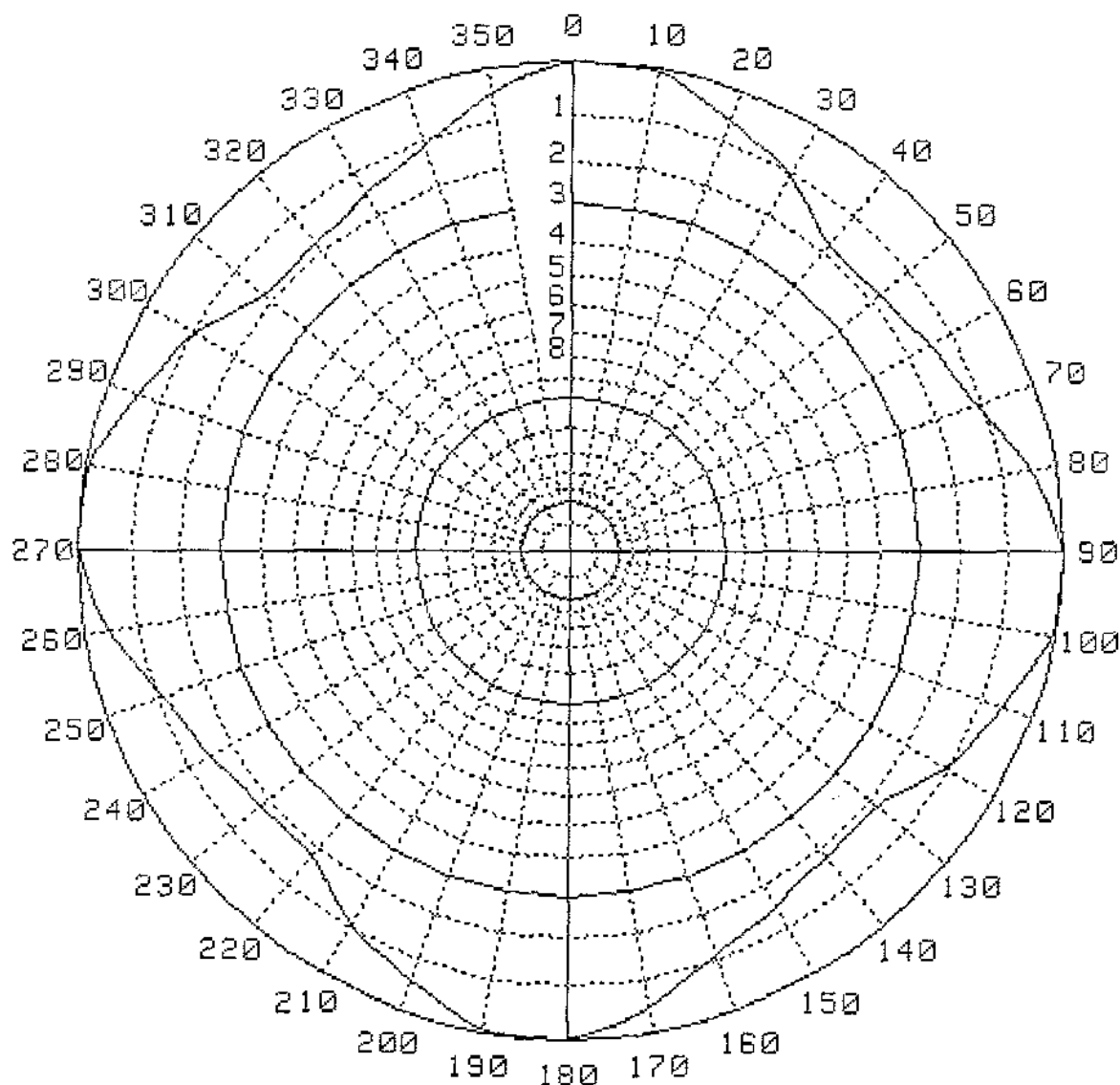
765 958

Blatt: 115

Frequenz (MHz): 495.25
 Datenfile Nr. : 401

Azimut (Grad)	Abstand (mm)	Versatz(→: -mm)	Phase (Grad)	Leistung(-fach)
0.0	-25	0	0.0	1.00
90.0	-25	0	90.0	1.00
180.0	-25	0	180.0	1.00
270.0	-25	0	270.0	1.00

$G_{\max}/G_{\text{mittel}}$ (dB): 0.88



85-12-91

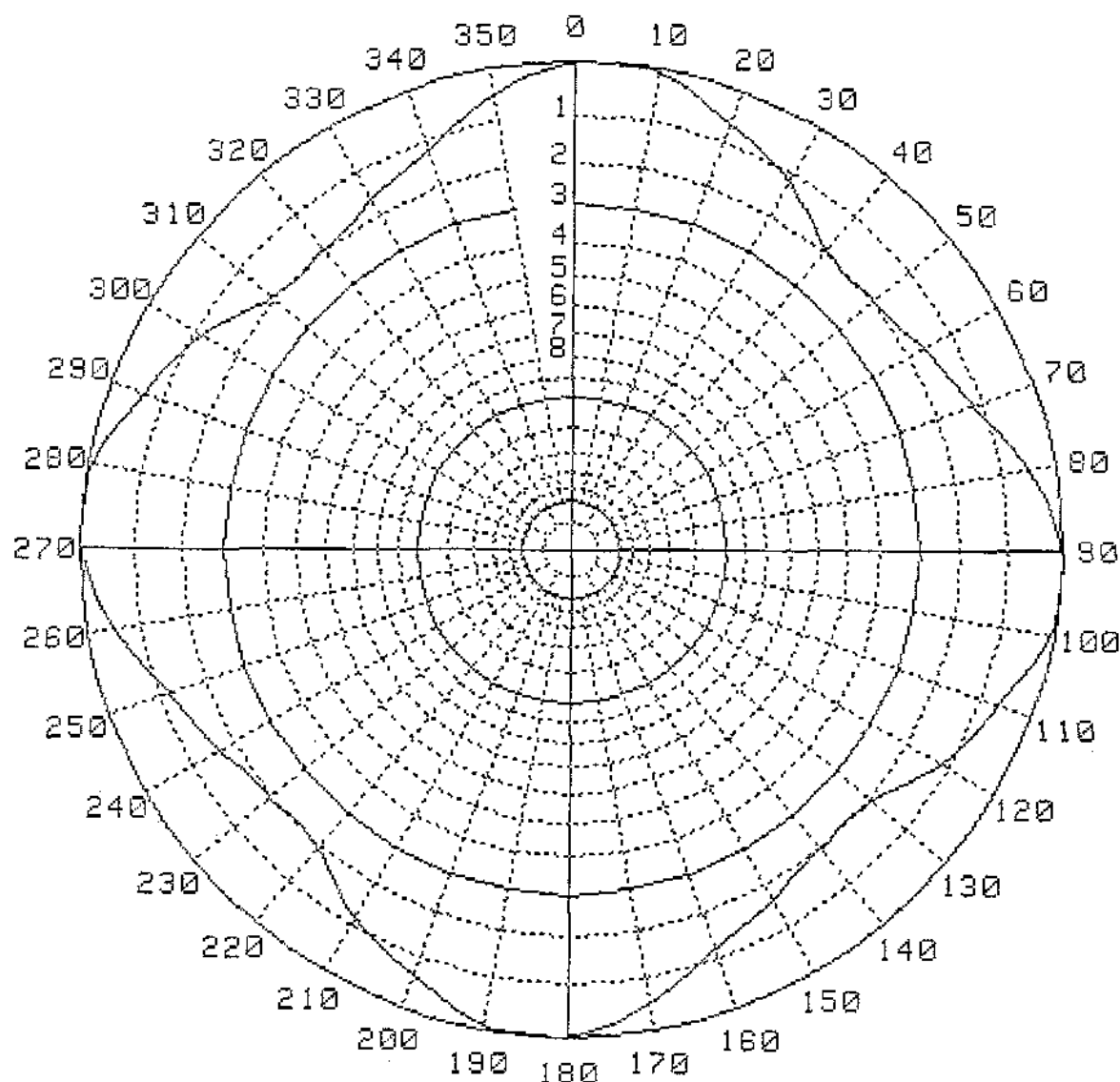
Horizontal Pattern of a Superturnstile Ant.
 in a Selfsupporting GRP Cylinder

KATHREIN D-8200 ROSENHEIM PTR Obereder	UHF Transmitting Antenna		Typ Nr.
	SKIEN	Channel 24	7 6 5 9 5 8
			Bl. 101

Frequenz (MHz): 575.25
 Datenfile Nr. : 401

Azimut (Grad)	Abstand (mm)	Versatz(→;-mm)	Phase (Grad)	Leistung(-fach)
0.0	-18	0	0.0	1.00
90.0	-18	0	90.0	1.00
180.0	-18	0	180.0	1.00
270.0	-18	0	270.0	1.00

$G_{\max}/G_{\text{mittel}}$ (dB): 0.96



05-12-91

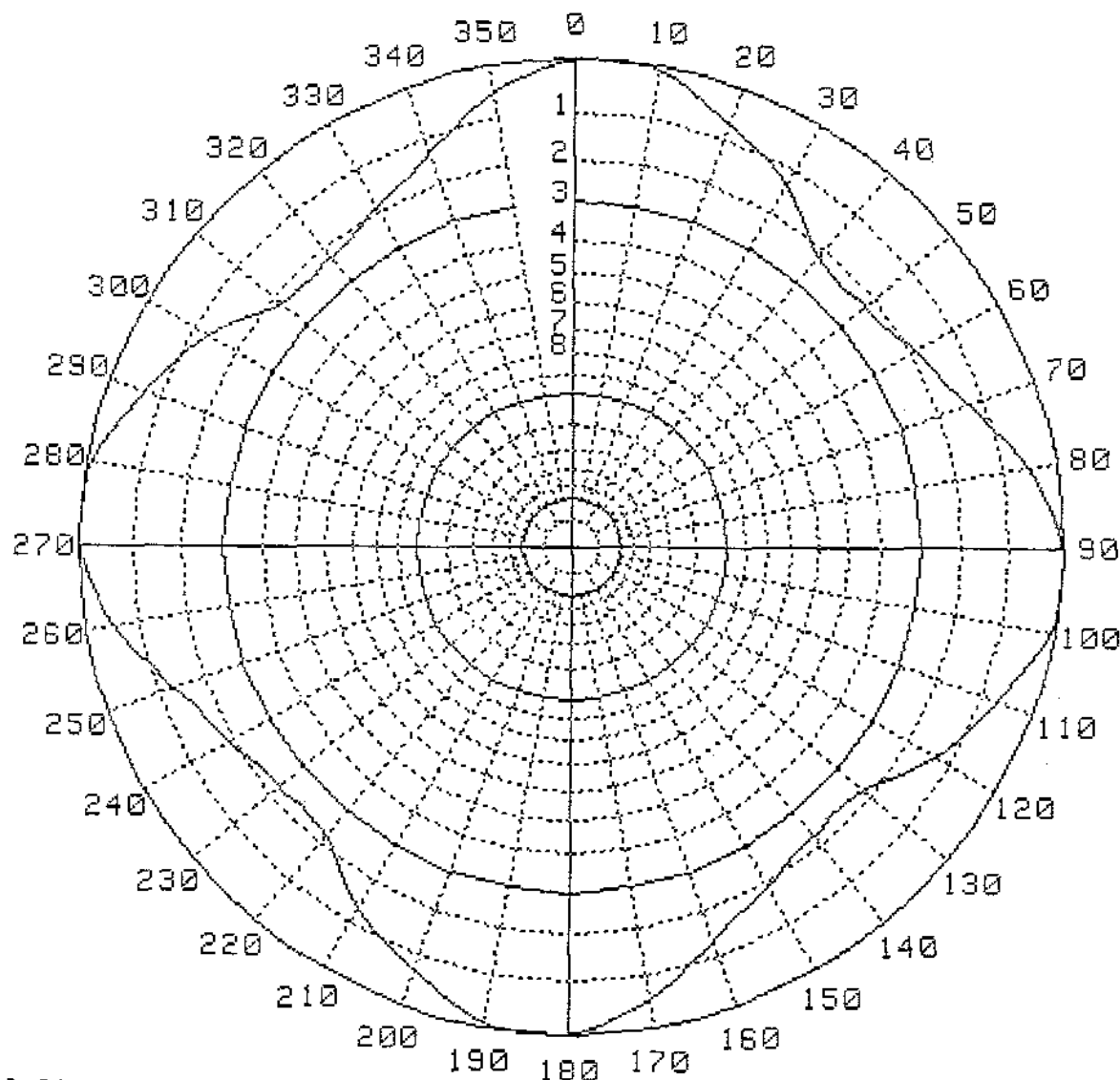
Horizontal Pattern of a Superturnstile Ant.
 in a Selfsupporting GRP Cylinder

KATHREIN D-8200 ROSENHEIM PTR Obereder	UHF Transmitting Antenna SKIEN Channel 34	Typ Nr. 7 6 5 9 5 8 Bl. 101

Frequenz (MHz): 655,25
 Datenfile Nr. : 401

Azimut (Grad)	Abstand (mm)	Versatz(+/-mm)	Phase (Grad)	Leistung(-fach)
0.0	-11	0	0.0	1.00
90.0	-11	0	90.0	1.00
180.0	-11	0	180.0	1.00
270.0	-11	0	270.0	1.00

$G_{\max}/G_{\text{mittel}}$ (dB): 1.00



05-12-91

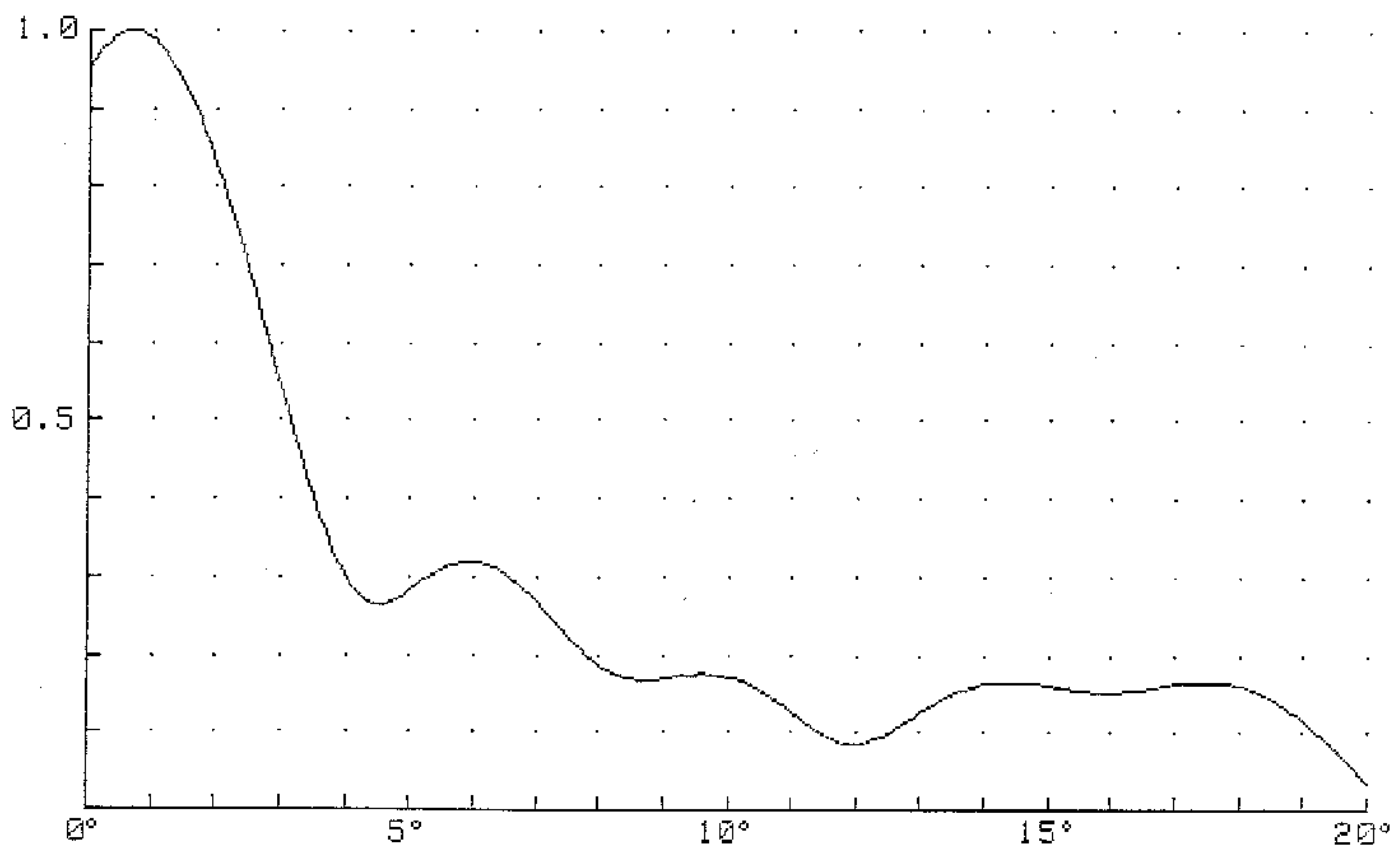
Horizontal Pattern of a Superturnstile Ant.
 in a Selfsupporting GRP Cylinder

KATHREIN D-8200 ROSENHEIM	UHF Transmitting Antenna		Typ. Nr.
	SKIEN	Channel 44	7 6 5 9 5 8
PTR Obereder			B1. 101

Frequenz (MHz): 495.25
 Datenfile Nr. : 181

Nr.	Abstand (mm)	Vorversatz(mm)	Phase (Grad)	Leistung(-fach)
8	1095	0	94.5	1.00
7	1155	0	67.3	1.00
6	1095	0	-7.6	1.00
5	1155	0	22.0	1.00
4	1095	0	-8.3	1.00
3	1155	0	25.1	1.00
2	1155	0	-8.3	1.00
1	1095	0	44.0	1.00

E-Faktor: 0.86



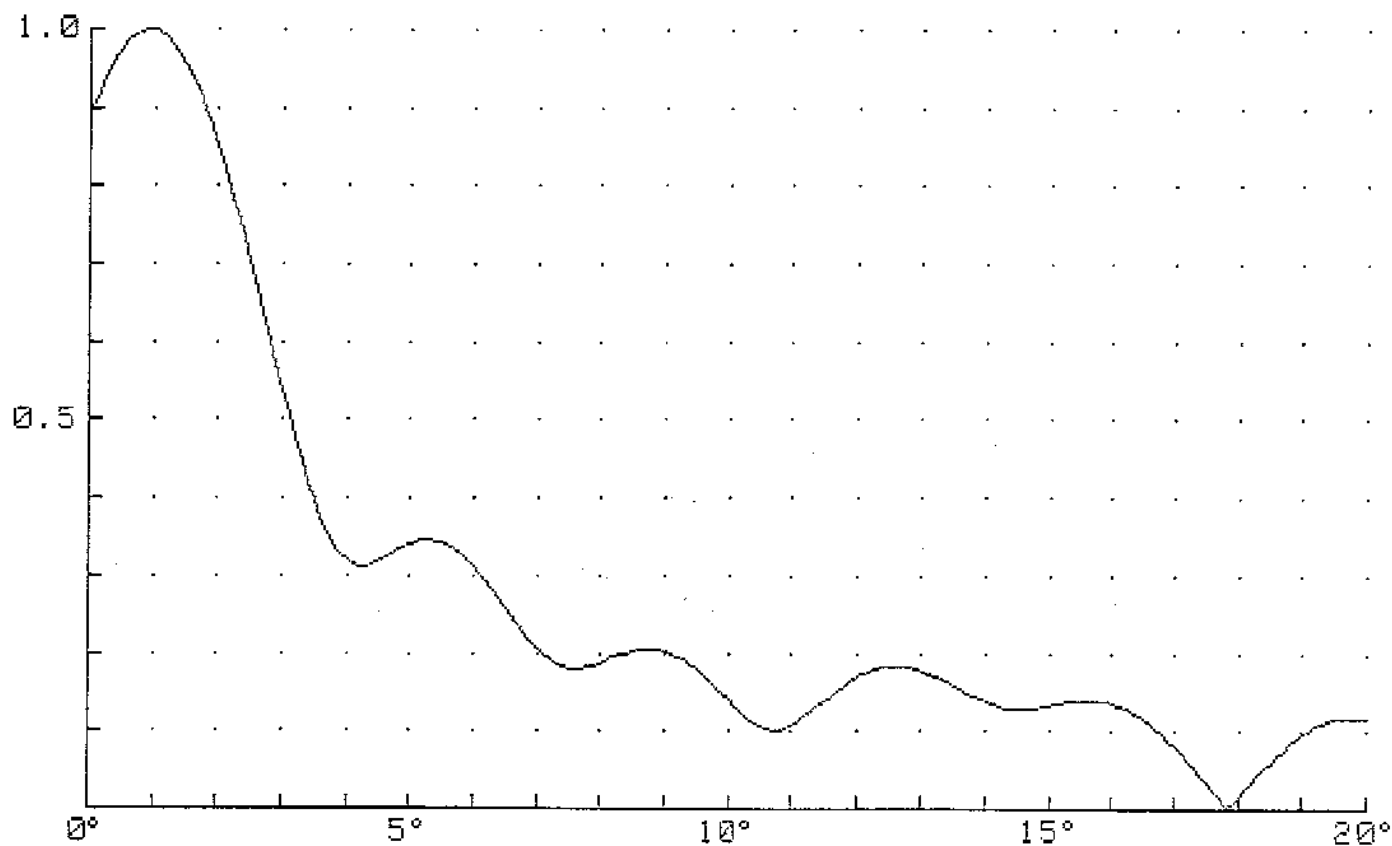
18-03-92

KATHREIN D-8200 ROSENHEIM PTR	UHF Transmitting Antenna SKIEN Channel 24	Typ Nr.
		765.958
		B1. 102

Frequenz (MHz): 575.25
 Datenfile Nr. : 183

Nr.	Abstand (mm)	Vorversatz(mm)	Phase (Grad)	Leistung(-fach)
8	1095	0	109.7	1.00
7	1155	0	63.7	1.00
6	1095	0	-8.8	1.00
5	1155	0	11.0	1.00
4	1095	0	-24.1	1.00
3	1155	0	.0	1.00
2	1095	0	-24.1	1.00
1	1095	0	22.0	1.00

E-Faktor: 0.84



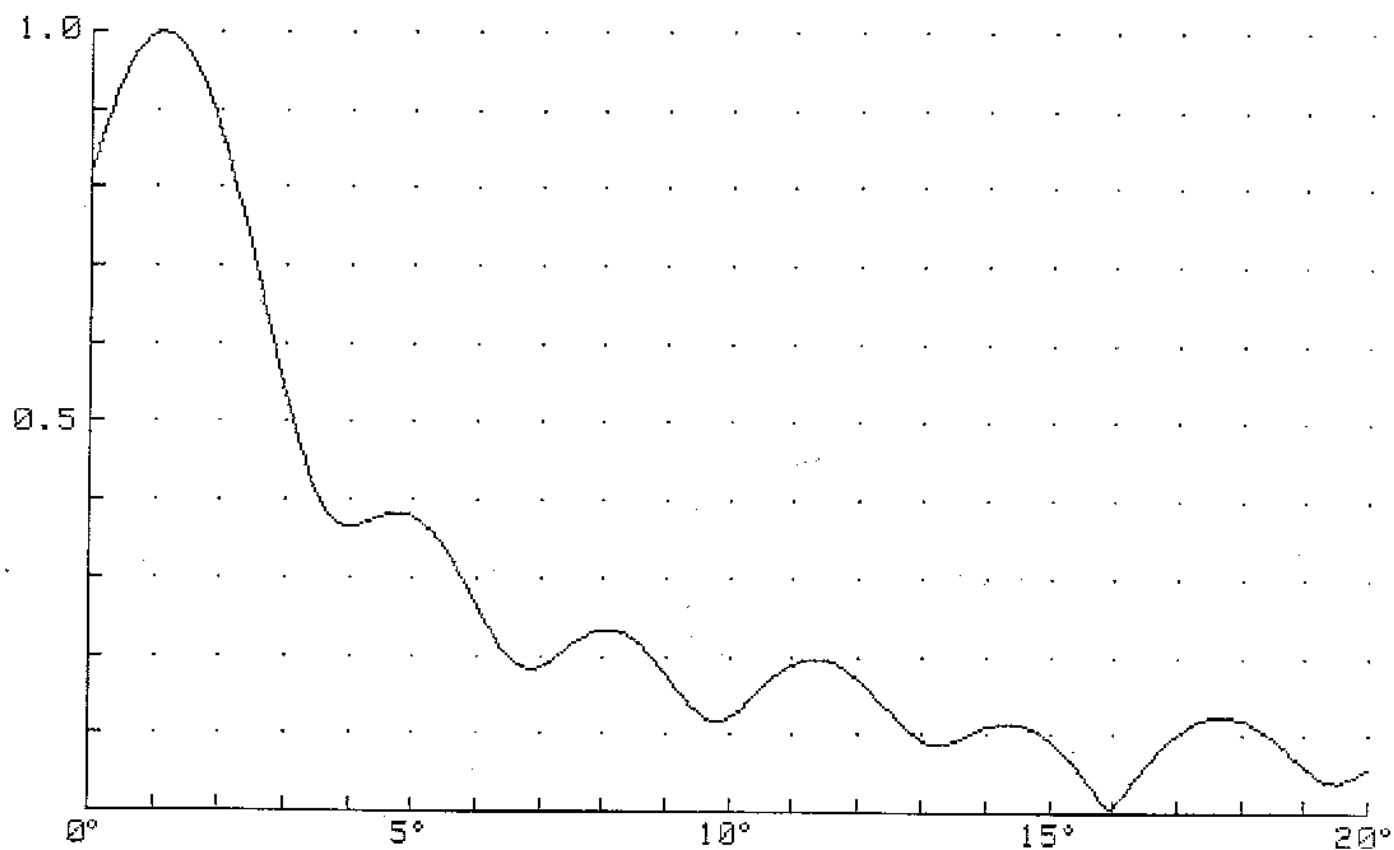
18-03-92

KATHREIN D-8200 ROSENHEIM PTR	UHF Transmitting Antenna SKIEN Channel 34	Typ Nr.
		765.958
		B1. 102

Frequenz (MHz): 655.25
 Datenfile Nr. : 104

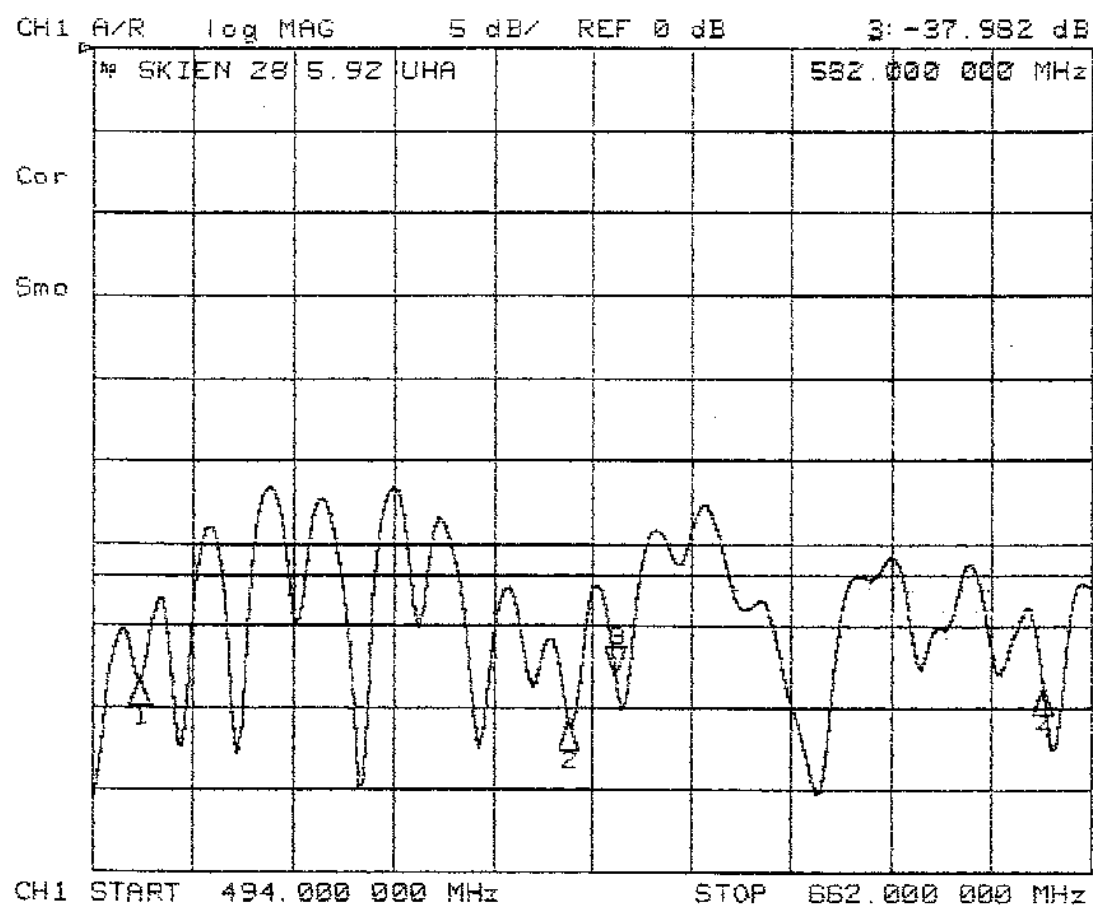
Nr.	Abstand (mm)	Vorversatz(mm)	Phase (Grad)	Leistung(-fach)
8	1095	0	125.0	1.00
7	1155	0	60.0	1.00
6	1095	0	-10.0	1.00
5	1155	0	0.0	1.00
4	1095	0	-40.0	1.00
3	1155	0	-20.0	1.00
2	1095	0	-40.0	1.00
1	1095	0	0.0	1.00

E-Faktor: 0.82



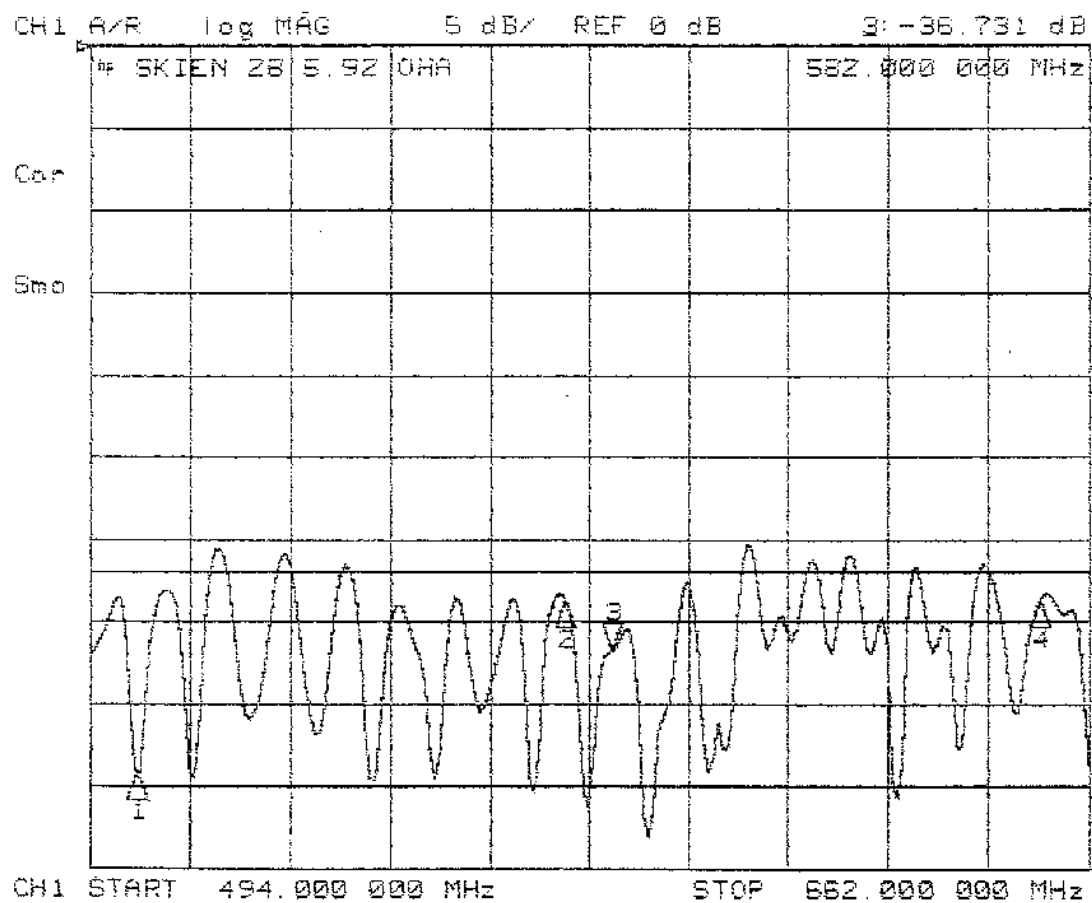
18-03-92

KATHREIN D-8200 ROSENHEIM PTR	UHF Transmitting Antenna SKIEN Channel 44	Typ Nr. 765.958
		B1. 102



Werksmessung

Rückflußdämpfung

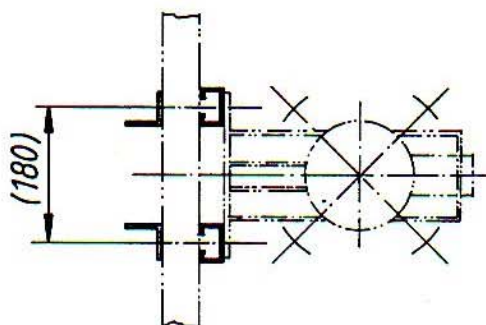
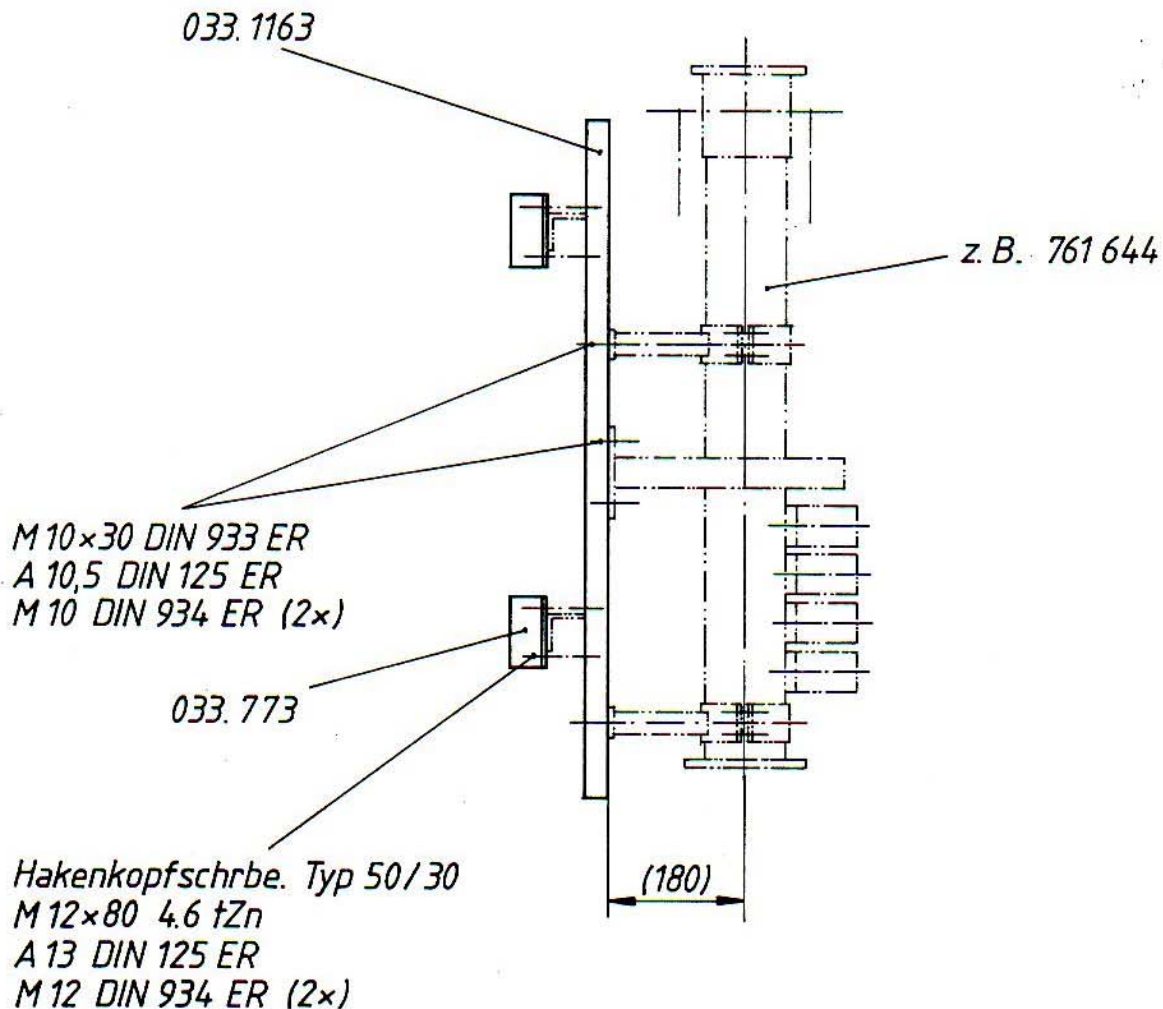


Werksmessung

Rückflußdämpfung

Item	Qty	Designation	Number	Remarks
1	8	UHF Superturnstile	762 644	
2	8	3-dB coupler	728 642	
3	16	U-iron 13/30	763 069	
4	2	Main splitter 4-way, tuneable	761 644	input 4 1/2" EIA outputs 1 5/8" EIA
5	2	Fixation splitter	763 231	
6	16	Coupling element 1 5/8"	092 1110	BN 91 11 10
7	8	Measuring probe	718 263	
8	8	Absorber 600 Watt	099 1276	BN 52 77 39
9	400	Tie 338 mm	072 135	
10	250	Tie TY 29 MX	072 613	
11	140	Cable clamps K 52 U	132 080	
12	140	Cable clamps K 12 U	132 117	
13	8	Elbow 7/16	092 930	BN 29 64 00
14	1	GRP-cylinder, complete	765 958-50	Manuf.: IBK
15	5	Protection cap	018 232	GNP 250/54
16	2	Elbow	033 1779	
17	16	Elbow	033 2543	
18	6	Plate	035 1435	
19	1	Plate	035 2617	
20	6	Cable shelf, welded	133 1138	
21	2	Fixation, welded	133 1780	
22	2	Support, welded	133 1781	
23	1	Fixation for absorber	133 1965	
KATHREIN-WERKE		UHF Transmitting Antenna		Type No.
Date	/	Name	S K I E N	
23.4.92		Perz	765 958	
				Sheet 114.1

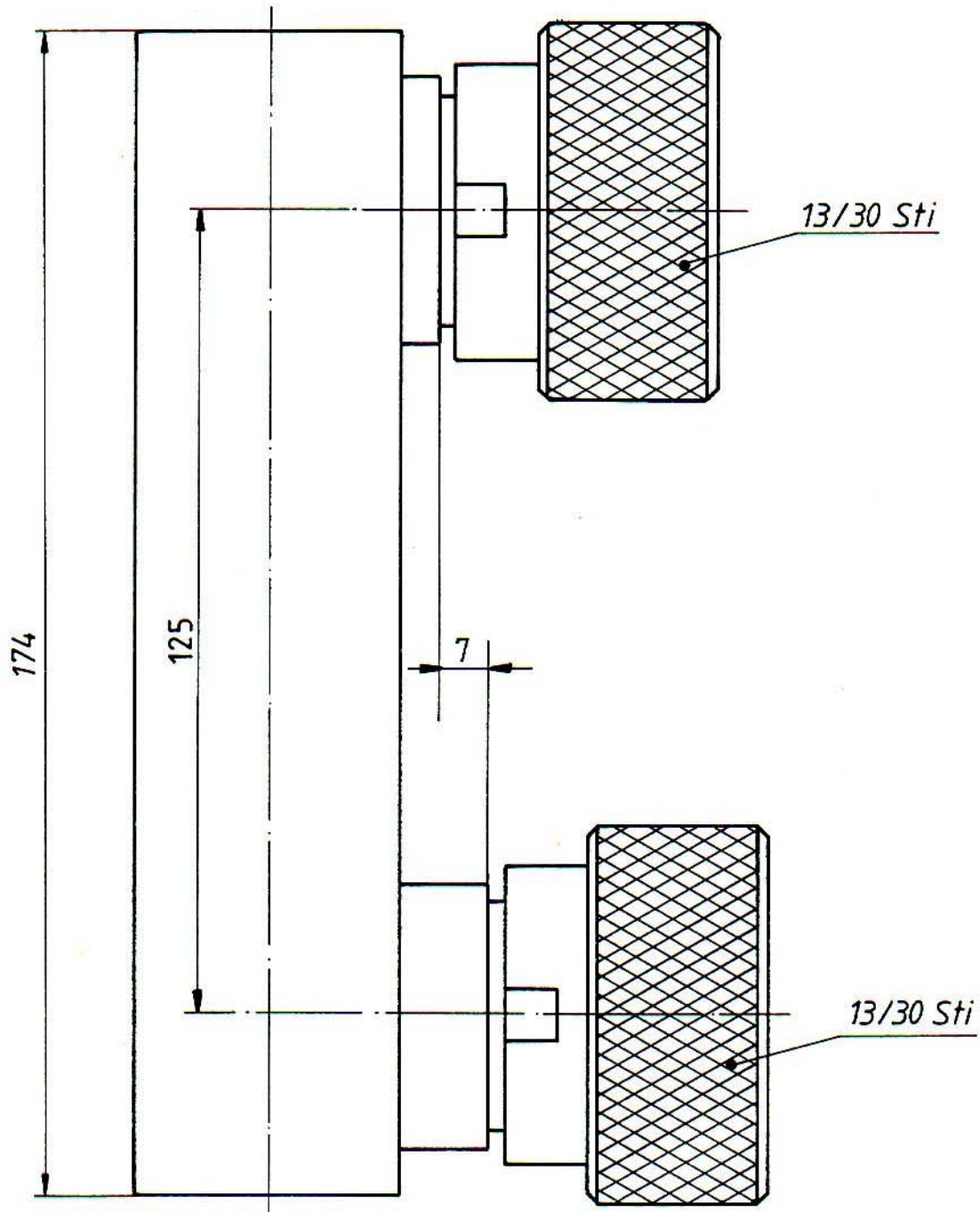
Item	Qty	Designation	Number	Remarks
24	8	Fixation, welded	133 2544	
25	5	Fixation, welded	133 2545	
26	4	Connecting piece, welded	133 2546	
27	4	Connecting piece, welded	133 2547	
28	2	Fixation, welded	152 1412	
29	1	Safety device system (safety ropes, etc.)	172 657	
30	3	Bulb 100 W	072 1150	
31	3	Standard lamp	172 658	type 532+FASSG
32	1	Switch HNA	172 664	type 119
33	1	Junction box	172 751	type 232/1
34	2	Junction box	172 752	type 232/D
35	17	m earthing cable	914 083	type NYCY 3x1,5
36	4	Sikaflex	995 132	221 T, grey
37	1	Cabling	765 958-80	see sheet 115
KATHREIN-WERKE		UHF Transmitting Antenna		Type No.
Date	/	Name	S K I E N	
23.4.92		Perz	765 958	
				Sheet 114.2



10. APR. 1992

				Freimaßtoleranz	Rohgew.	Oberfl.:	
				1990	Tag	Name	Maßstab
				Bearb.	12. 1.	Huber	Befestigung für Ant Vert 1 : 10
				Gepr.			
				KATHREIN-Werke KG			Blatt
				Postfach 260			2
				8200 Rosenheim 2			
Ausgabe	Änderung	Tag	Name				

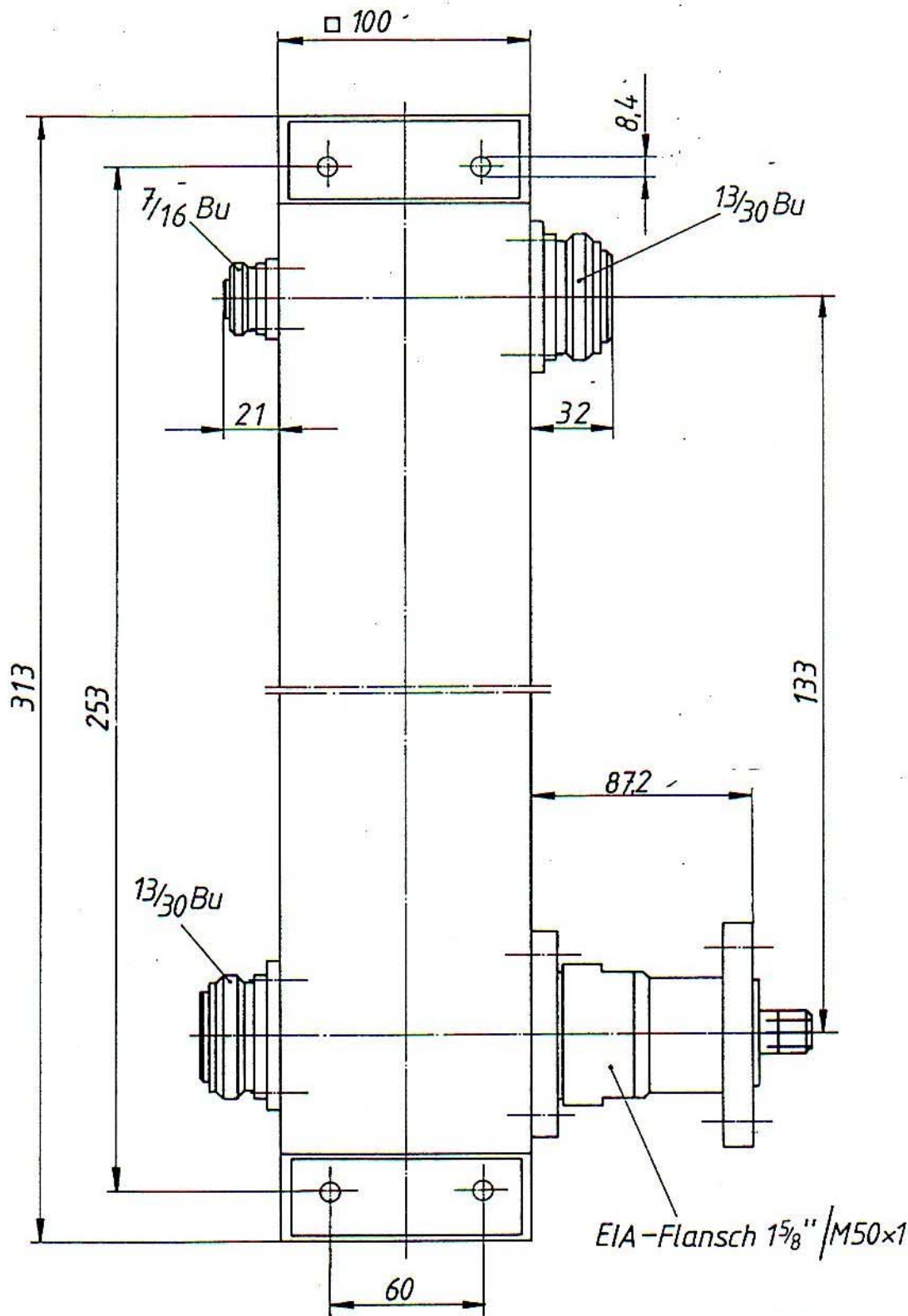
18. APR. 1992



10. APR. 1992

					Freimaßtoleranz	Rohgew.	Oberfl.:
					90	Tag	Name
					Bearb.	08.02	Heimich
					Gepr.	3/2/80	Seck

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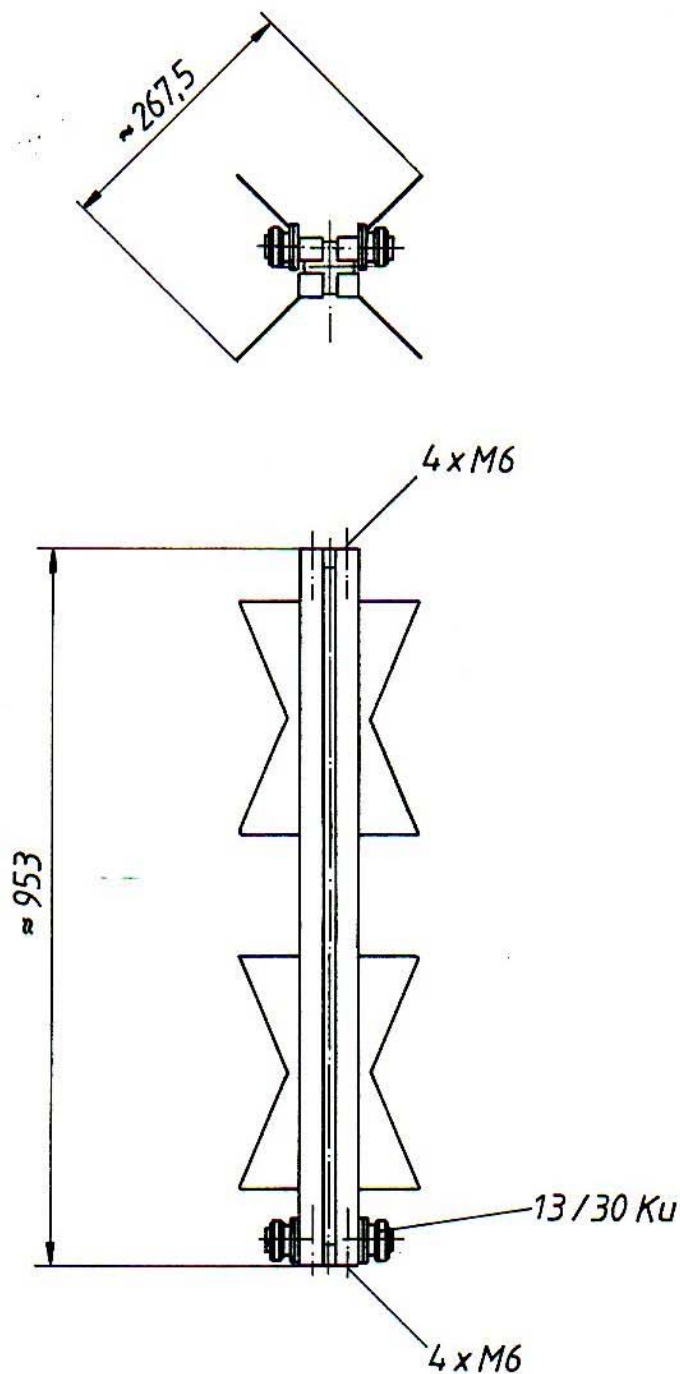


10. APR. 1992

				Freimaßtoleranz	Rohgew. %	Oberfl.: RAL 7032	
				1989	Tag	Name	Maßstab
				Bearb.	31.10.	Schwarz	1:25
				Gepr.	6.11.	<i>[Signature]</i>	
				KATHREIN-Werke KG			Blatt
				82 Rosenheim 2			1
Ausgabe	Anderung	Tag	Name	UHF			

3dB-Koppler

728 642



10. APR. 1992

				Freimaßtoleranz	Rohgew	Oberfl.:	
				90	Tag	Name	Maßstab
				Bearb.	05.03.	Heinrich	1:10
				Gepr.	5/3/90	Seitz	
				KATHREIN-Werke KG		UHF-Superturnstile	
				Postfach 260		762.644	
				8200 Rosenheim 2		Blatt	
Ausgabe	Anderung	Tag	Name			1	

Gummi Zwischenlage 1)
rubber pad

chbruch im Riffelblech 1)
or main coaxial cables

ER = stainless steel
tZn = hot dip galvanized

Index 2) Lieferumfang	NORWEGIAN TELECOM
Index 2) supplier	NORWEGIAN TELECOM
Index 1) Lieferumfang	Fa. IBK
Index 1) supplier	IBK company
ohne Index Liferumfang	Fa. Kathrein
without Index supplier	KATHREIN company

10. APR. 1992

				Allgemein- toleranz	Rohgew. Z	Oberfl.:	
				Tag	Name	SENDEANTENNE TRANSMITTING ANTENNA SKIEN (NORWEGEN)	
				Bearb.	16.03.92 Heinrich		
				Gepr.	16.03.92 Seebacher		
				KATHREIN		Messtab 1:20 (1:10, 1:5, 1:25, 1:2.5)	
				82 Rosenheim 2		Blatt 2	
Aus- gabe	Renderung	Tag	Name	f/MHz 470 - 860, 8ST			