

VÄSTKUSTENS MIKROVÅGSGRUPP

c/o

SM6CKU
Bengt-Arne Jöckert
Allatorp 1446
S-430 33 Fjärås

Bulletin Nr 1/85

Fjärås den 19 mars 1985

Hej,

Många har frågat om sista VMG-bulletinen har utkommit, men det har den inte! Detta blir bara senaste utgåvan. Men ni märker att det blir längre och längre mellan utgåvorna. Ni vet säkert varför också? Aktiviteten här på Västkusten har avtagit dramatiskt senaste åren, och just nu tycks bara Morgan 6ESG vara på. Om vi nu får lite fina tropoconds på västkanten så kanske det blir lite bättre fart. Vi försöker, använd 432.200 resp. 1296.200 i första hand för anrop och lyssna inte bara!

DEN 27 DECEMBER 1982 ansökte VMG om fyrstillstånd på 2320.800 resp 5760.800 utan resultat. Den 24 juni 1984 skrev VMG till SSA styrelse och frågade vad som kunde göras samtidigt som ny ansökan insändes till Televerket. Från trafiksekreteraren 3AVQ kom ett kort som bekräftelse på att VMG:s skrivelse nått SSA i alla fall.

Sedan dess.....ja vad tror ni? Inte ett smack har hänt. Just när jag skriver detta upptäcker jag att kortet från SSA var undertecknat av SMØCWC och att AVQ utsetts som handläggare.....

Vad tycker ni?

73 de SM6CKU

LA8AK meddelar: NY NORSK BEACON - LA3UHG 1295.997 MHz DS80c
1W RF ANT 15+15 superyagi 10 dB QTF 200°. 4m a.s.l.

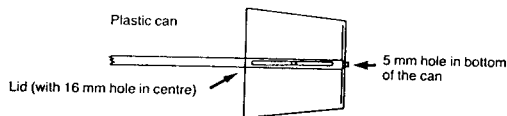
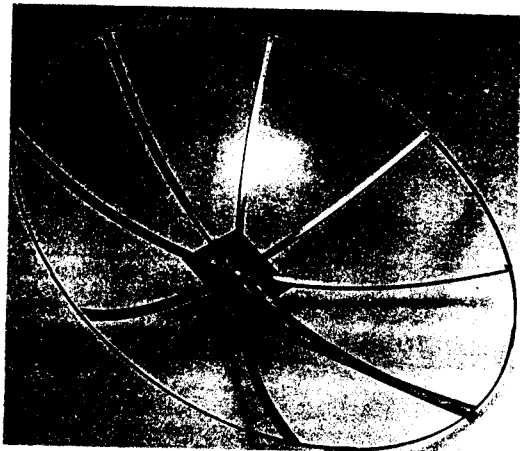
SM6FHZ har bidragit med nyttigt nomogram för omvandling mellan olika sätt att uttrycka reflekterad effekt. Även de förluster man får pga reflektioner finns med som "transmission loss". Detta gäller endast för effektförluster i reflektioner och ej pga loss i kabel etc.

EX. 1.2 VSWR = 21 dB Return loss = 0.8% reflekterad effekt och ger ca 0.03 dB förlust men 10 dB Return loss (ca 1.9 VSWR) ger 0.45 dB effektförlust!! Detta gäller även mottagning vilket kan medföra att din 0.5 dB preamp funkar som 1 dB. Fråga gärna FHZ mer om detta!

DISH 1,2 m SEMI-KIT

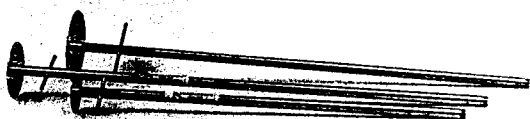
Assembling the dish kit

1. Drill the holes for the two u-clamps (not supplied) matching your mast tube diameter.
2. Bolt the eight legs to the centre plate and tighten.
3. Fold out the outer ring and form it around the edges of each leg in order to mark the last hole.
4. Drill this hole (3 mm). Complete the ring.
5. Lay the dish up-side down on a flat surface and place the ring around the edges.
6. Fold each edge-tab around the ring to keep it in place.
7. Now the dish is ready to be covered with 1/2-inch mesh or chicken wire (not supplied).
8. Fasten the mesh with any convenient non-corrosion material.
9. Try to get the mesh form the same smooth surface as each leg. Use a pair of pliers to tighten the wires till you are satisfied with the result.
10. If you bought our dish feed you may now put it into the centre hole and do not forget to try out the correct focal distance. This is calculated to 36 cm but you may check this using a stable signal source and push the feed in and out. Then tighten the feed clamp observing the correct polarization.
11. You may want to weather protect the feed and this can be done with a plastic can which is big enough to cover the slotted part of the coaxial line. See sketch.
12. Now you can mount the dish on your mast tube and be sure to have a very good antenna outperforming any yagis.



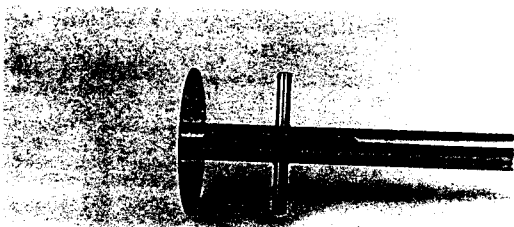
DISH FEED

1269, 1296, 1691, 2304
2320 MHz



Dipole and reflector radiator

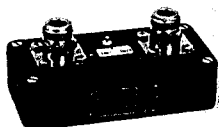
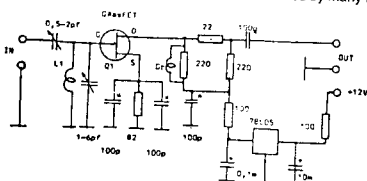
Nominal impedance: 50 ohms
Connector: Type N, female
Polarization: Linear, vertical or horizontal
Beamwidth: Suitable for a f/D of 0.25 - 0.4



Center frequency:		Mechanical dimensions	
1,3 & 1,6 GHz	2,3 GHz	Length (standard) approx	700 mm 500 mm
Return loss (at resonance): 25 dB	18 dB	Coax line outer diam	16 mm 16 mm
Bandwidth (at 9.5 dB return loss, 1:2 VSWR): 200 MHz	500 MHz	Reflector diameter	115 mm 63 mm
		Weight, approx:	550 g 300 g

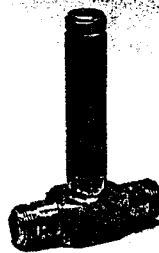
432 PRE AMPLIFIER

LABE Electronics offer this excellent 432MHz GaAs-Fet pre amplifier using a MGF-1400. NF is better than 0.8 dB and an associated gain of nearly 20 dB. It uses N-connectors both in and out and measures 100x50x25 mm the connectors not included. Apply 10-15VDC and be surprised! We assume you have mounted the pre amp as close to the antenna as possible, otherwise you do not take full advantage of its superior performance. It is used by many EME stations.



LABE ELECTRONICS

1296 MHz ANTENNA
COMBINERS



Typical performance:
Return loss: 20 dB
Insertion loss: 0.1 dB
Phase balance: ±2
Impedance in out: 50 ohm
Power handling: 500W

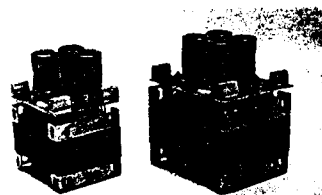
If you for some reason cannot use a parabolic dish on 1296 MHz you probably want to stack several yagis or loop yagis. Be aware of the difficulties when stacking antennas on this frequency. You cannot expect the same gain increase like on 144 or 432 MHz.

Our Antenna Combiners or Power Dividers are very carefully manufactured and will give you the best possibilities not to fail when stacking your antennas.

LABE Power Supply Modules

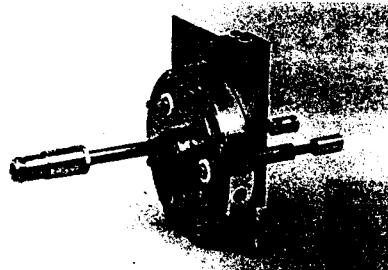
Power supply modules

We can supply these modules for the LABE single or dual tube amplifiers. They will provide the 6V heater, bias and plate voltage.
Two versions are available, both with 117/230VAC primary. One with 500 or 700VDC 100 mA (continuously), 6VAC 1A and bias circuit suitable for the single tube amplifier and another one with 750 or 1000 VDC 300 mA, 6VAC 3A and bias circuit for the single or dual tube amplifier.

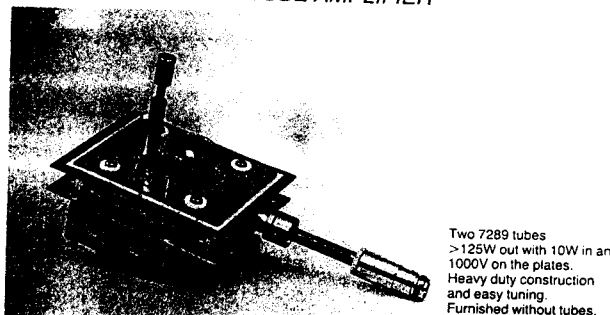


LABE ELECTRONICS SINGLE TUBE AMPLIFIER

Using 2C35, 7289 etc.
20W out with 1W in and
800V on the plate
50W out with 3W in and
1000V on the plate
Nice design with easy
tuning.
Furnished without tubes,
blower and power supply.



DUAL TUBE AMPLIFIER



Two 7289 tubes
>125W out with 10W in and
1000V on the plates.
Heavy duty construction
and easy tuning.
Furnished without tubes,
blower and power supply.

LOW NOISE HIGH GAIN 1296 PRE AMPLIFIER

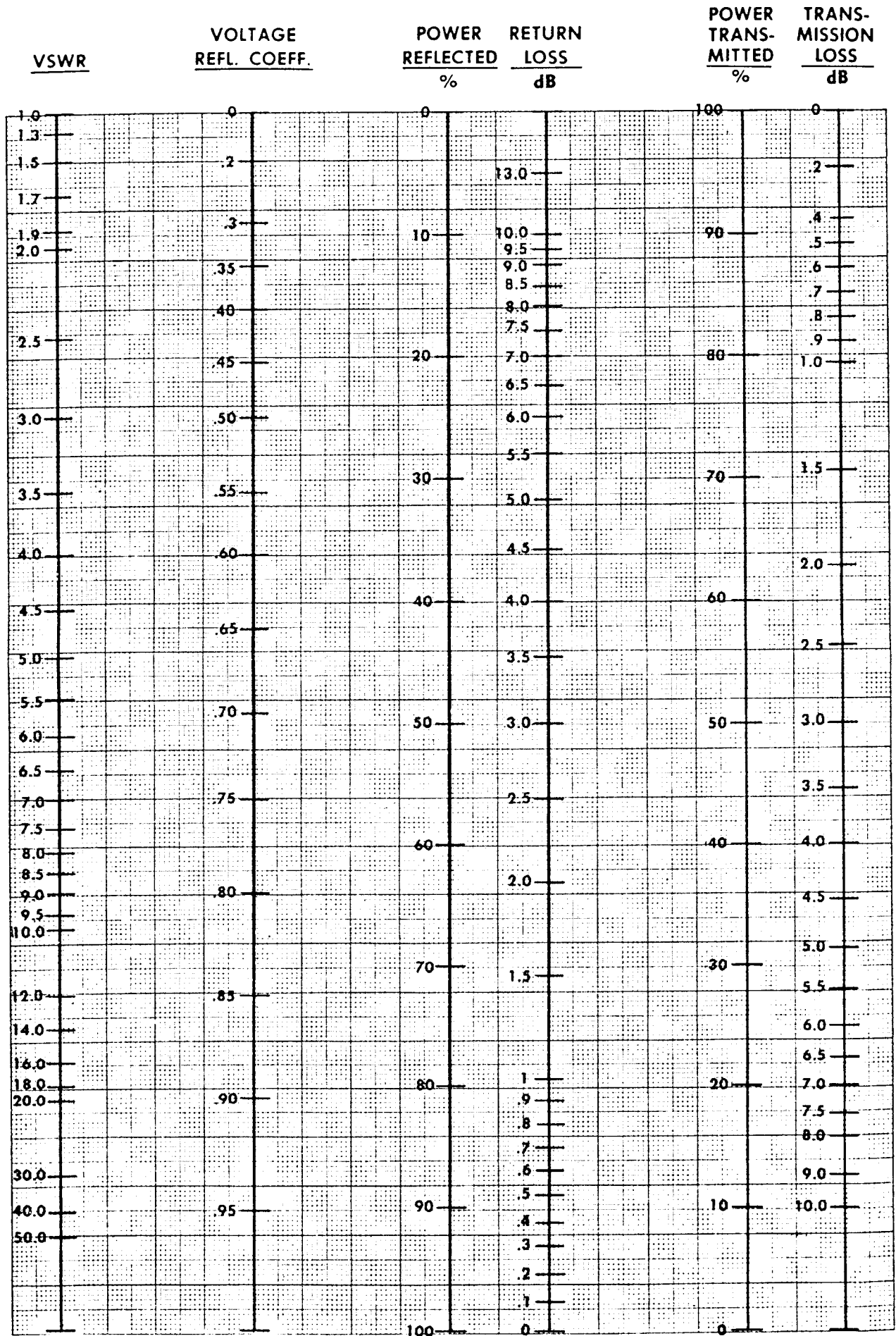
NF: 1.0 dB
Gain: 18 dB
N-connectors
10-15 VDC
100x50x25 mm
connectors excl.



PARABOLIC AB

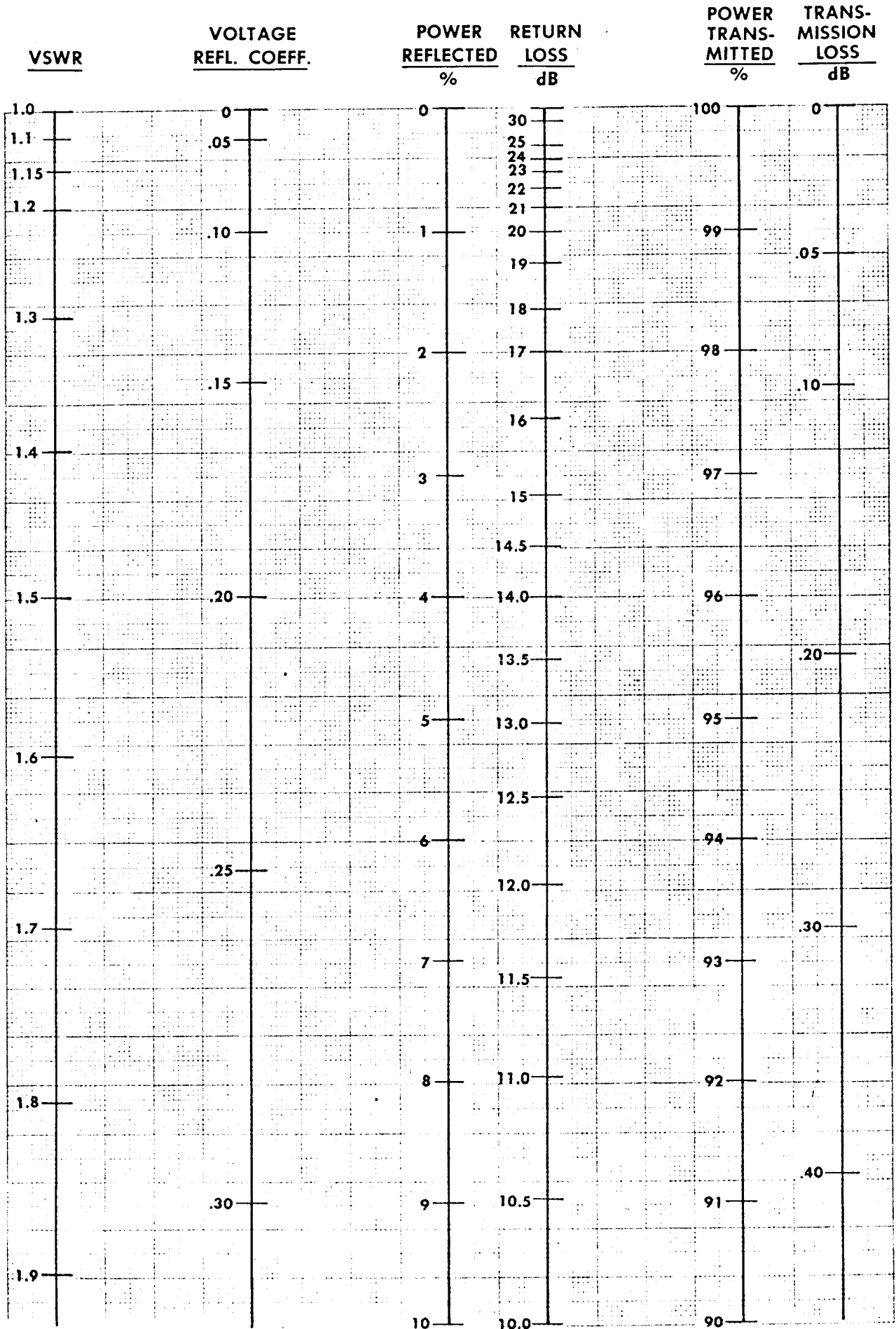
TEL. 0300-444 60 - P.O. BOX 10257
S-434 01 KUNGSBACKA SWEDEN

VSWR NOMOGRAPH # 1



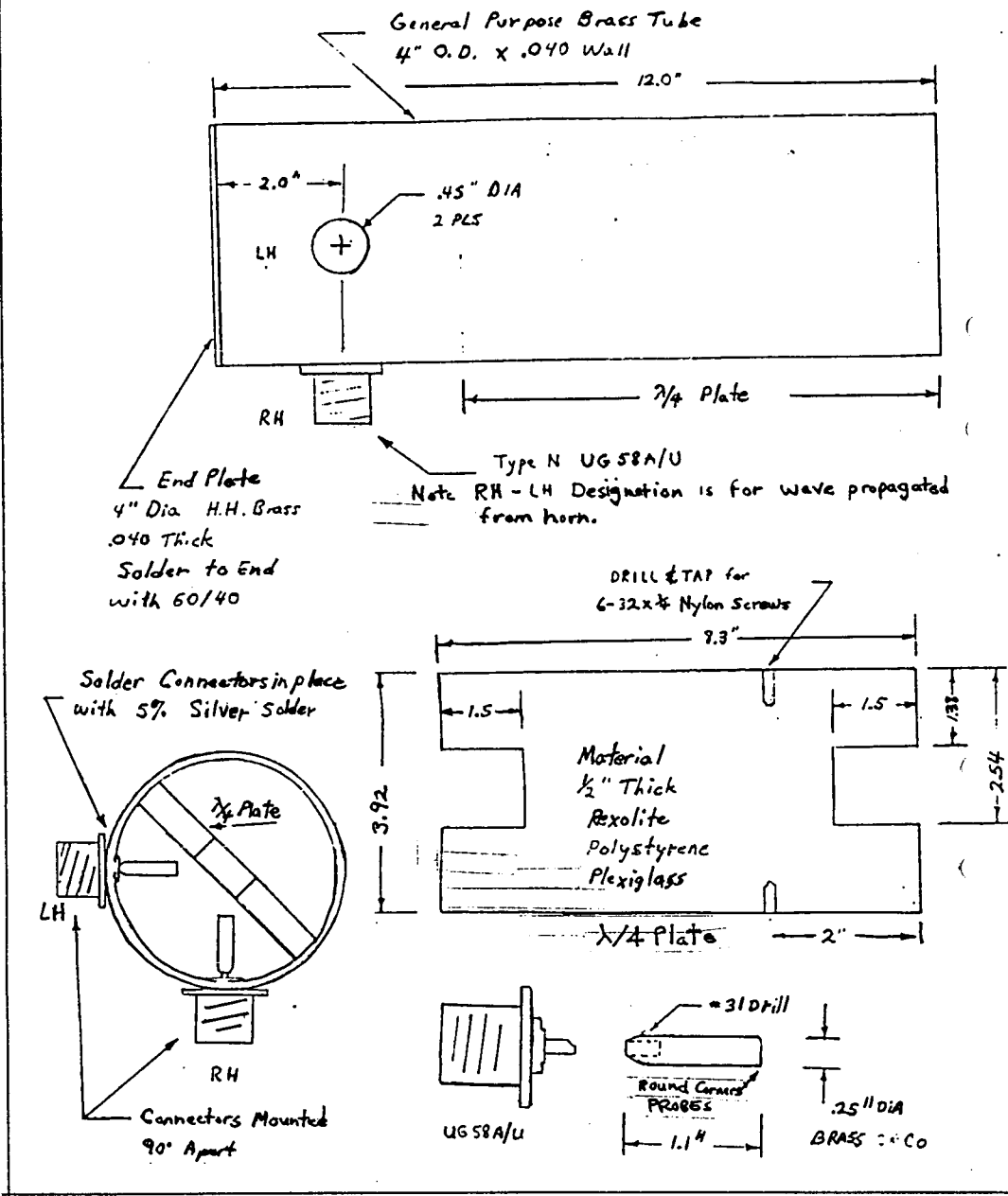
Courtesy of Gershon J. Wheeler

VSWR NOMOGRAPH # 2



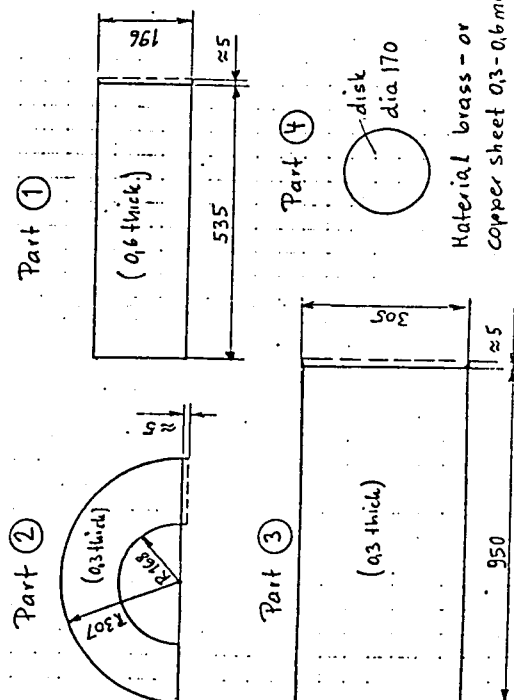
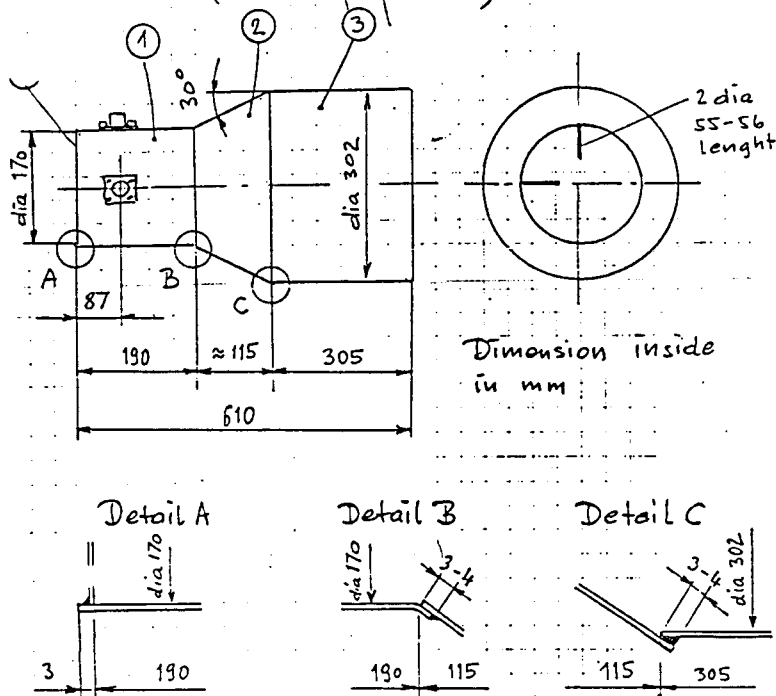
Courtesy of Gershon J. Wheeler

2304 MHz CIRCULAR POLARIZED FEED ($f_b = .375$)



Dual mode horn 1296 MHz (W21MU shortened)

OE9PHJ Apr. 84

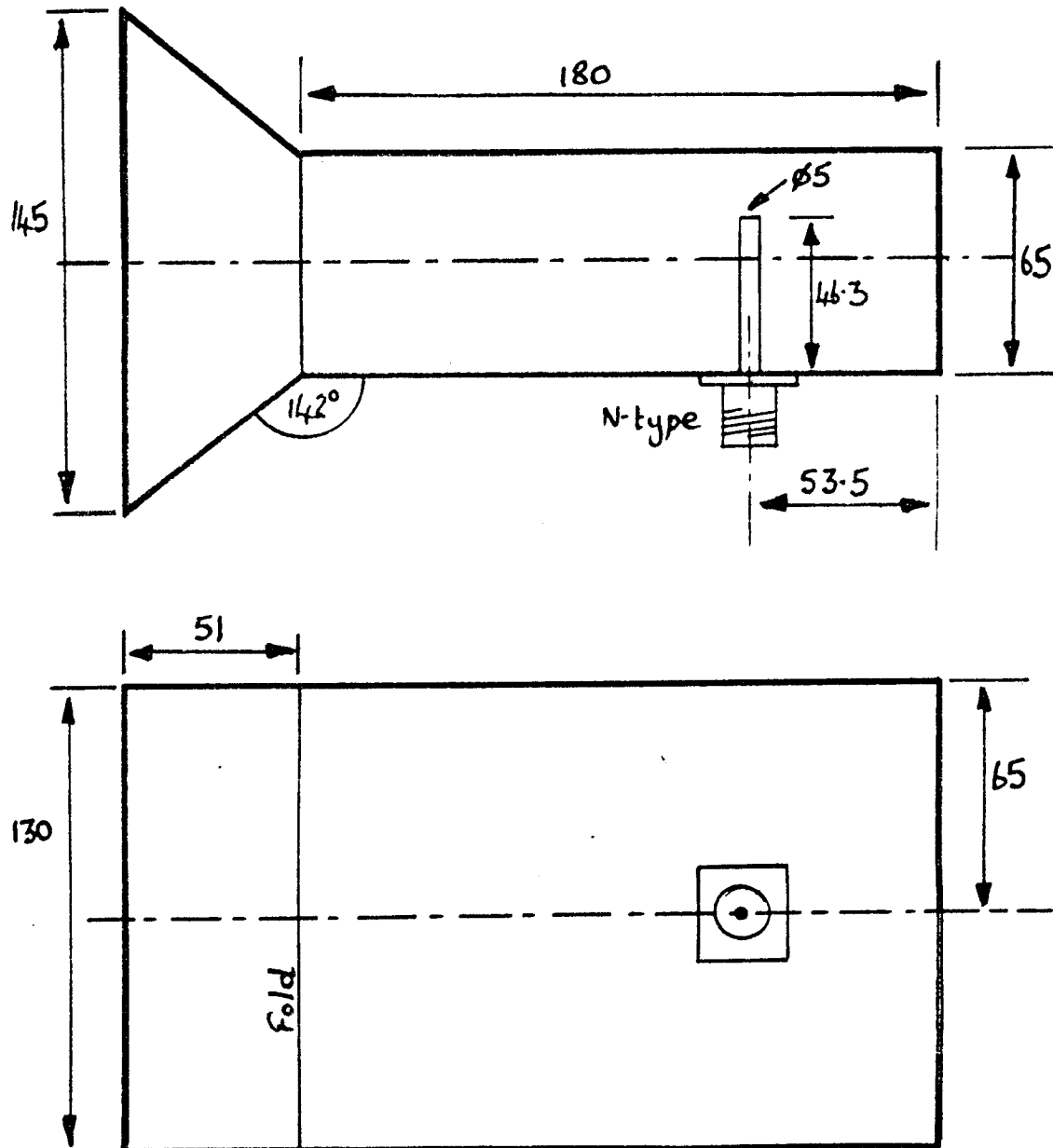


06/06/84

Combined Feed Horn for 23cm and 13cm

by DK1VC

This is another item from 'Der SHF Amateur' passed on to us from G4BYV (see last month). The horn is designed to feed a dish with a f/d ratio of 0.38 and has a gain of 6.5dBi. A side and plan view are shown below:



All dimensions are in mm. The waveguide size is 65 x 130mm. The measured VSWR was 1.6 to 1 on 1296MHz and 1.5 to 1 on 2320MHz.

Beacon news.

Since October 1984, two new VHF beacons have been qrv from Greenland on 50MHz and 144MHz. OX3VHF is the common callsign for both beacons and they are situated in the north-eastern part of the island, Danmarkshavn/IQ06PS.

The purpose of these beacons is to investigate the propagation mode wick led to the recognition of 144MHz ssb-signals in Danmarkshavn, on several occations, most likely from Great Britain. Scandinavian FM-broadcast stations has been heard as well, even in station Nord, 550km further to the North. Both beacons are running 24 hour duty, but in case of good conditions they can be operated manually by the beacon-keeper, OX3BX-Tommy Frost Hansen, on 144MHz on a seperate frequency.

If you copy OX3VHF, and want to work Tommy, you can call him via Inmarsat (operator handled call) :xxx 299 16 10 225.

The 50MHz beacon was reported by SM6PU in December.

Data as follows:

OX3VHF	50,045MHz(50,045opr.)	IQ06PS	20W	GP	OMNI	20m	AlA
OX3VHF	144,902MHz(144,269opr.)	IQ06PS	10W	6el.	SE	20m	AlA

For some time now OY6VHF/OY6UHF have been qrt due to two major problems.

There has been an antenna breakdown in wick the cables also was damaged(2x60m RG17). In the future operations these cables wont be needed anymore, as the beacon has been rebuild, to be mounted directly at the antenna site.

New antennas has been arranged as well. On 144,885 there will be two 4 element CUE DEE, donated by the factory, one pointing to NE(Aurora), the other to SE(Tropo-Es). On 432,885 the antenna will be an 8 element encapsuled group-antenna pointing to SE. The other problem remains though.

To get permission to put the beacon back in operation again, on the original, ideal qth, there will, in the future, be an electricity bill to pay. Approx. 1000SEK/350DM/100£ per year, wick is more than FRA, the local society will be able to pay. Quite natural when you know how many active VHF/UHFers there are in the islands.

We are therefore trying to establish a fund, to secure the continuous running of this important beacon, the coming years. Contributions will be welcomed from societies as well as individuals. Any amount in any currency will be welcomed by OY9JD, Jon or OZ7IS, Ivan. Thanks.

INVITATION

to

THE ANNUAL NORDIC VHF-UHF-SHF MEETING

JUNE 14-15-16. 1985 - FREERSLEV, DENMARK.

Hereby we have the pleasure to invite you to the annual Nordic VHF-UHF-SHF meeting. The 1985 event takes place in Denmark, at the former school of Freerslev, near Haslev, 55km south of Copenhagen, 105km north of Rødby on the E4.

Since 1979 the Ånnaboda meetings became an institution, thanks to Orebros Sändare Amatörer, but in 1983 Turun Radioamatöörit proved, with the Tuliranta meeting, that this annual event could take place outside Sweden.

Now a group of Danish amateurs welcomes you to the 1985 meeting.

A detailed program will be presented at a later date, where we will try to include the following activities, though some eventually will be altered:

Lectures on Es, Microwave technique & components + other items.
Discussions on EME, MS and general VHF-UHF-SHF matters.
Flea-market.

Commission sales stand. You bring it - we sell it.

Gain and radiation pattern measurements on antennas for 144, 432 and possibly 1296MHz.

Noise & gain measurements on preamps and receivers 50 - 1296MHz.
Overall tranceiver test stand.

The annual "football" match: SK7MW vs. OZ7UHF.

Party on Saturday night with dance and other festivities.

Special activities for the family: Sight-seeing, cartoons etc.

Radio activity at night on 144, 432, 1296, ?

Camp fire at night and Danish beer.

Breakfast, lunch and evening meals will be arranged.

Infrared FM-transmission link.

Meteosat demonstration

Relax-evening on Sunday night.

Fox-hunting on 433MHz.

AF-transmissions between fellow hams under influence of ham spirits.

Indoor accomodation possibilities in 2 - 3 - 4 - 6 person rooms, as well as camping facilities outdoor
To cover the expenses the fee will be 150 D.kr indoor and 50 D.kr outdoor per person for the whole period.

You can contact: MAX, OZ1EMZ or GRETHE, OZ1EOA on phone:

xxx 45 1 31 99 30 between 1600 - 1900 GMT or write:

OZ7IS, Ivan Stauning, Bartholinstræde 20, DK-2630 Taastrup.

Vy 73 es cu in Freerslev de OZ5UKW, OZ7HAS, OZ7UHF & OZ9EDR.

