

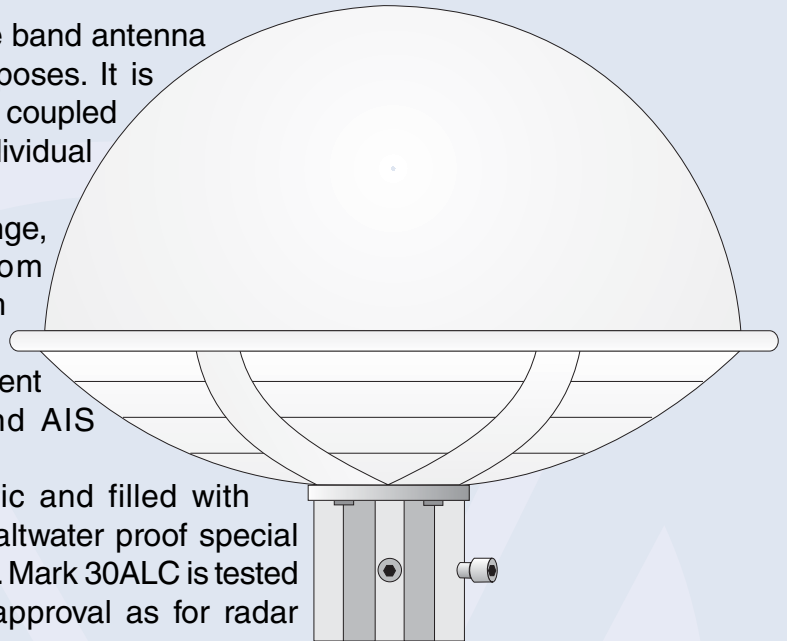
# TV-FM antenna Mark 30ALC

Mark 30ALC is an omni-directional wide band antenna (40-890 MHz) TV-FM, for maritime purposes. It is based on a construction of loop antennas coupled to three band amplifiers each with an individual automatic level control unit - ALC.

The ALC's have very high dynamic range, and keep the antenna free from intermodulation even in the vicinity of high power transmitters.

High efficiency suppression filters prevent interference from VHF telephone and AIS transmitters.

Mark 30ALC is made of ABS plastic and filled with polyurethane foam. Mounting base in saltwater proof special alloy and bolts in stainless acid proof steel. Mark 30ALC is tested by "Det Norske Veritas" for the same approval as for radar equipment.



The advantages of Mark 30ALC compared to a Yagi antenna are:

- Automatic level control-ALC.
- Rigid, non-corrodible, maintenance free construction
- Small dimensions and easy to mount.
- Omni-directional, no adjustments.
- Replaceable amplifier.
- Integrated VHF/AIS suppression filters.

## TECHNICAL SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Frequency range:          | 40-110 MHz, ALC > 60 dB<br>170-230 MHz, ALC > 50 dB<br>470-890 MHz, ALC > 35 dB(470-700 MHz)<br>ALC > 25 dB(700-890 MHz) |
| Gain:                     | >25 dB@40-110, 170-230 MHz<br>>25 dB@470-890 MHz<br><-10 dB@ 156 MHz (Radio telephone)<br><-10 dB@ 162 MHz (AIS)         |
| Return loss:              | >16 dB@40 MHz -1.5 dB/octave   |
| Noise factor:             | 4.5 dB   |
| ALC limited output level: | 95-100 dB $\mu$ V  |
| Intermodulation:          | CTB < -60 dBc  |
| Output impedance:         | 75 ohm   |
| Connector:                | BNC male   |
| Supply voltage:           | 15 V DC  |
| Current consumption:      | approx. 200 mA   |
| EMC:                      | EN 50082-1, 55024-2, 55024-4   |
| Operation temp. range:    | -40 - +70°C  |
| Weight:                   | 3 kg   |
| Material:                 | ABS white  |
| Approvals:                | DNV's Standard for Certification No 2.4,<br>chapter 3.6.2, Sweep Sine Test, vibration<br>strain class C                  |
| Protection:               | IP68, housing only<br>(Excl BNC connector)   |



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Since 1971, the objective of Naval Electronics has been to offer the best possible products for TV and Radio reception at sea. Naval began with omnidirectional antennas and is the world leader in this field of technology today. Now, with an expanded product range, the name Naval means much more than antennas. Naval operates in more than 40 countries and has installations on thousands of vessels all over the world.

All specifications stated are subject to change without notice.



# Naval

Marine Broadband Communication

Naval Electronics AB

Höjrodergatan 18, SE-212 39 Malmö, Sweden

Tel. +46(0)40-29 20 45. Fax +46(0)40-18 74 13

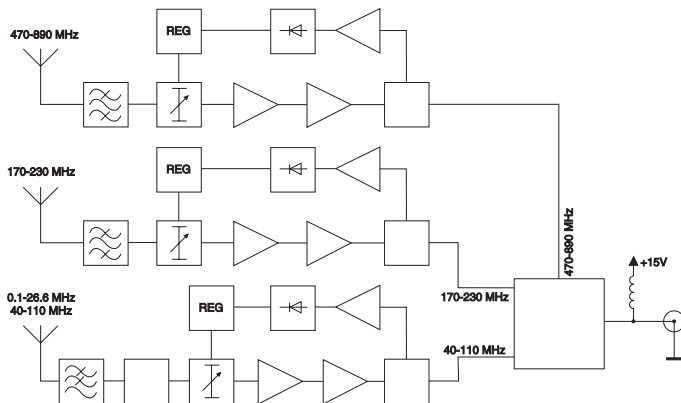
E-mail:sales@naval.se www.naval.se



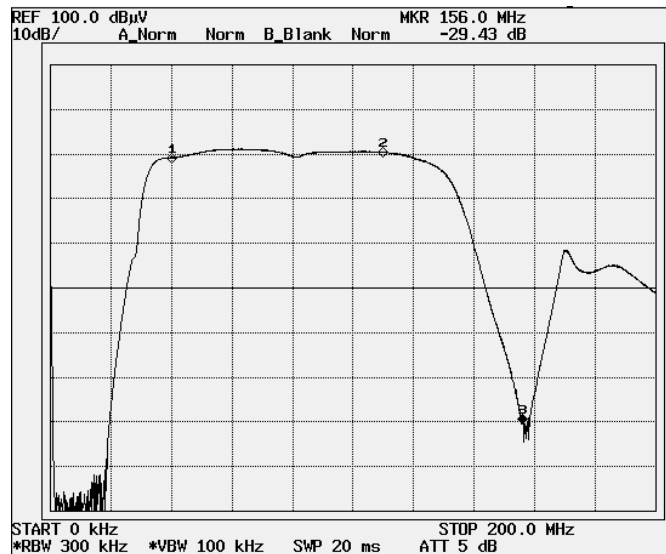
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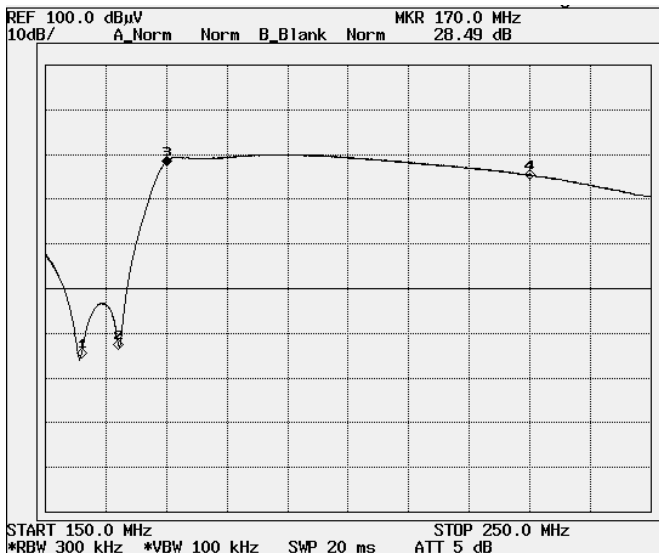
## Block diagram



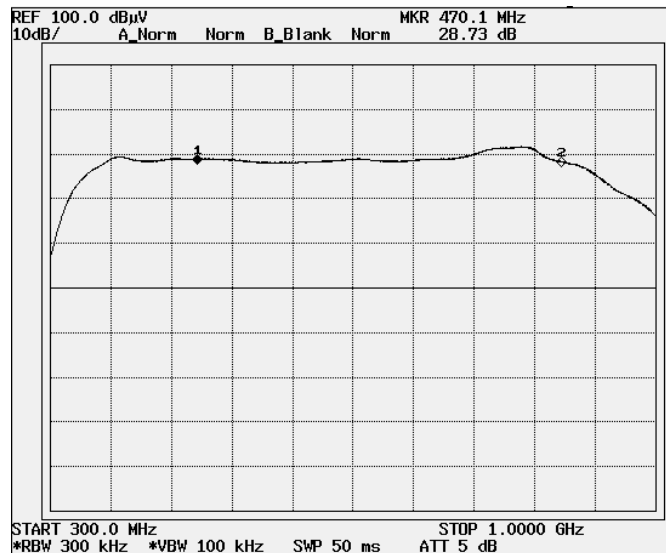
## Plot BI-FM (Representative)



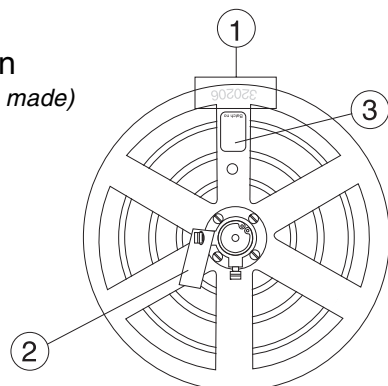
## Plot suppression filter with VHF-AIS (Representative)



## Plot UHF (Representative)



## Antenna identification (to be stated when claim is made)



1. Serial no.
2. Inspection tag
3. Type label

For installation procedure please consult  
Mk 30/32ALC installation manual

Order No.  
201.090

Shippingweight: 5.5 kg  
Standard package: 1  
Volume: 59 cdm