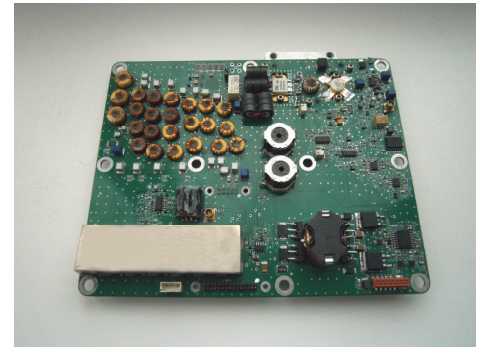


## 20W Embedded HF Power Amplifier

PA 20W is single board designed according to the highest accuracy requirements with the most advanced technology. The amplifier provides the highest level of linearity, power efficiency and reliability of HF radio transceivers in the up-to-day digital communications. PA 20W is intended to be integrated into HF digital radios operating within 1.5...30 MHz frequency range.

It provides reliable communication in most harsh environmental conditions.



### Technical specifications

Operating frequency range:	1.5-30 MHz
Output power in CW, AM, SSB PEP modes:	
Amplification gain:	20 W $\pm$ 1 dB
Nominal power input level :	30 dB
	16 dBm
Intermodulation :	Less than -36 dB relative to PEP at 50 $\Omega$ load
Harmonic level:	-33 dB relative to PEP ; VSWR $\geq$ 2:1
	Less than -50 dB with 7-band switch filter in the frequency bands:
	1.5-2.19 MHz
	2.2-3.39 MHz
	3.4-5.19 MHz
	5.2-7.99 MHz
	8.0-12.29 MHz
	12.3-18.99 MHz
	19.0-30.0 MHz
Non-harmonic component level:	$\leq$ -70 dB
Input/output impedance:	50 $\Omega$
Operation at load mismatch:	Operation is provided with VSWR 2:1 – 5:1. The output power is reduced to: 13W at VSWR=2, 9W at VSWR=3, 6.5W at VSWR=4, 3W at VSWR=5
	Independent protection at short and open output is provided.
Activation time:	2 sec.
Tx/Rx Switching time:	10 msec.
Rx/Tx Switching time:	25 msec.
Switching time between any filters:	2 msec.
Interface:	RS232 / RS485
Control system:	Monitoring and indication of the following are provided: Output power level; reflected power level; VSWR value; operating frequency range; input signal level; thermal conditions control; monitoring of the filters; monitoring of final stages and the other functional parts of the device.
Cooling system:	Air forced.
Overheating protection:	Automatic cooling system control, two-step overheating protection.
Supply voltage :	24 $\pm$ 2V DC. Input current $\leq$ 2A at nominal load in CW mode.
Operation cycle:	Continuous
Operating temperature range:	-30 to +55 $^{\circ}$ C
Size:	198 $\times$ 160 $\times$ 25 mm
Weight:	300 g