TLC 02 Mk2

HF Broadband Coupler

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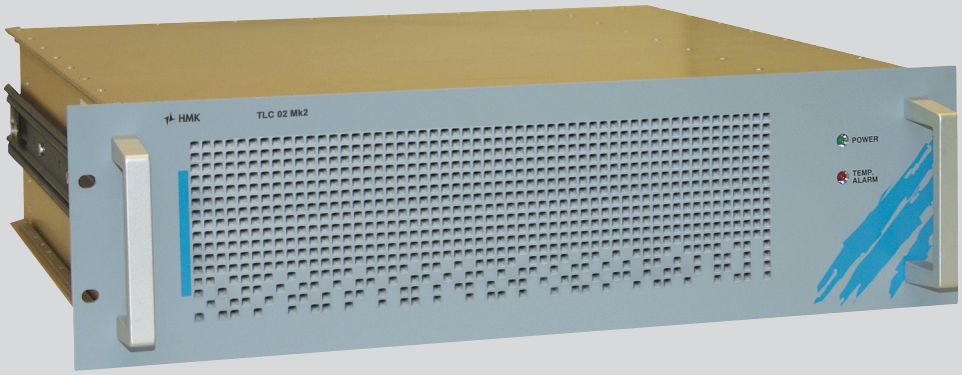

FEATURES

Frequency range	1.5 MHz to 30 MHz
Frequency separation	Not required
Input power	2x 1 kW RF-input power (PEP/average)
Cascading	Possible
Cooling	integrated load with forced air, temperature alarm

GENERAL

The passive coupler TLC 02 Mk2 enables two HF transmitting lines with max. output power of 1kW each to work with a single broadband antenna or a broadband antenna system. The decoupling of both transmitting lines is independent from the frequency separation. Thus both transmitting lines can be used simultaneously and independently. The TLC 02 Mk2 is basically designed for non-coherent operation ($\Delta f \geq 10$ Hz) with max. 2x 1 kW (average) / 2 kW PEP inputs. It can further be used for setting up coherent systems (same frequency and $\Delta\Phi \leq 10°$) with 2x 2 kW PEP inputs.

Hagenuk Marinekommunikation
A company of the ATLAS ELEKTRONIK Group

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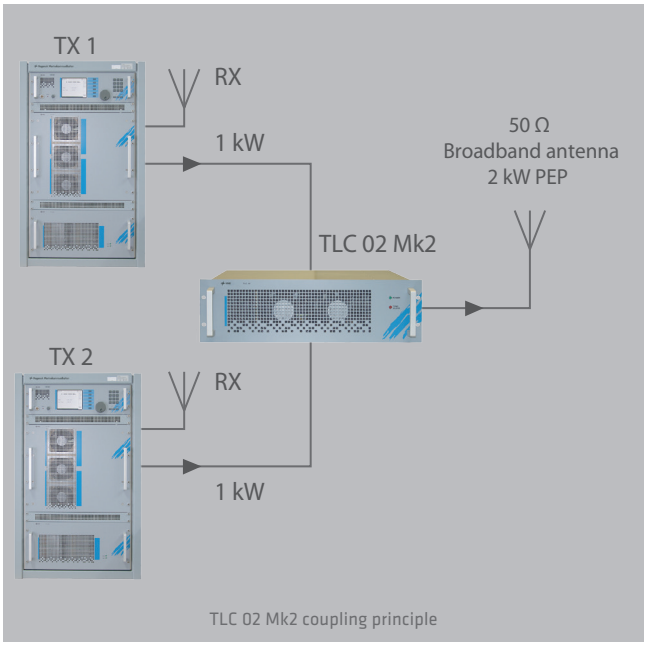
TECHNICAL DATA

Frequency range	1.5 MHz – 30 MHz
Required frequency separation	None
Number of ports	2 x in, 1 x out
Max CW input power rating	
Input port 1	Up to 1 kW / 2 kW PEP avg
Input port 2	Up to 1 kW / 2 kW PEP avg
Insertion loss per channel	Typ. 3.3 dB non coherent Typ. 0.3 dB coherent
Decoupling between port 1 + 2	> 20 dB
System impedance	50 Ω
RF input	N-Type
RF output	7-16
Temperature alarm at heat sink temp	N 100 °C
Temperature alarm interface	Relay contact 50 V / 1 A



TLC 02 Mk2 coupling principle

Power supply	100 VAC - 240 VAC, 50 Hz – 440 Hz
Power consumption	< 40 VA
Storage temperature	-30 °C to +70 °C, acc. to MIL-STD-810H, method 501.7 procedure I, method 502.7 procedure I
Operating temperature	-15 °C to +55 °C, acc. to MIL-STD-810H, method 501.7 procedure II, method 502.7 procedure II
Humidity	40 °C, 95 % RH, acc. to MIL-STD-810H, method 507.6 procedure II
Shock	30g / 20 ms half sine shock, acc. to MIL-STD-810H, method 516.8 procedure I
Vibration	MIL-STD-810H, method 514.8, procedure I
General	- general vibration a ii, category 21, watercraft marine vehicles, fig. 514.8D-11
Environmental	MIL-STD-810H, method 528.1, procedure I – environmental vibration, 5.1.2.4.2 exploratory vibration test 5.1.2.4.3 variable frequency test 5.1.2.4.6 endurance test
Pressure	Ati 5.000 m (16.405 ft), acc. to MIL-STD-810H, method 500.6 procedure I
EMC	MIL-STD-461G, procedure CE101, CE102, CS114, CS115, CS116, CS118, RE101, RE102, RS101, RS103 IEC 60945:2002-08, chapter 9.2, 9.3, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9 DIN EN 62311:2020-12 DIN EN 61000-3-2:2014 DIN EN 61000-3-3:2013
Protection	IP23 acc. to IEC 60529:1989 + A1:1999 + A2:2013
Dimensions (without handles/socket)	
Height	133 mm (3 U)
Depth	400 mm
Width	482 mm (19")
Weight	Approx. 15 kg

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