

# IMARK

## PRODUCT DESCRIPTION

### 5208L LINK

5208L Link Transceiver in 19" 3RU Cabinet for installation at Equipment Sites

Imark Stock # [930111](#)

#### Features:

- 3RU Cabinet
- Power Supply with Battery Backup Facility
- One Kyodo KG108 or KG208 Transceiver
- Interface/Switching Module for interfacing to other transceivers
- Full Local Control



#### DESCRIPTION:

The Imark 5208L has been specifically designed to provide a low cost versatile means of connecting a 1-25 Watt mobile radio into a repeater/transponder at radio equipment sites. It is a self-contained unit incorporating transceiver, power supply, and interface/switching module and only requires the addition of an antenna and feeder cable to be operational. It can be supplied with an internal Back-Up battery if required (as an option at additional cost).

The Power Supply Module incorporates an AC Mains SM Power Supply with battery back-up facility and automatic changeover facility. It can be supplied without the Power Supply if required at reduced cost for use at solar powered sites.

The 5208L includes one Kyodo KG108 or KG208 1-25 Watt mobile transceiver and an audio interface/switching module. The Kyodo KG108/208 transceiver is available for any FM frequency between 66 MHz and 520 MHz, have channel capacities of up to 200 channels, and includes CTCSS encoders and decoders that can be programmed for different CTCSS tones on a per channel basis.

The RF Power output can be set anywhere between 1 and 25 watts with two fixed outputs being available on a per channel basis. Thus, the transceivers can be pre-programmed with all likely channels, so that the 5208L can be deployed immediately as a stand-by link without wasting time to program the transceivers.

The Audio Interface/Switching unit is included to provide the correct audio levels between the link and other transceivers. A DB25 connector is provided on the rear of the cabinet and has I/O's for Busy, PTT, Audio Input, and Audio Output.

The 5208L cabinet is designed for 19" rack mounting and is 3RU in height. The cabinet features all steel construction and is fitted with handles to assist with manoeuvrability and site location.

The Imark 5208L Repeater is normally supplied with the Power Supply, Transceivers for the required frequency band, and the necessary Interface/switching module.

SPECIFICATIONS:	
General	Details
Number of Channels	Up to 200
Channel Spacing	12.5KHz, 20KHz, 25KHz, or 30KHz (5/6.25/10/12.5 KHz PLL steps)
Operation Mode	Two Frequency Simplex
Antenna Impedance	50Ω Unbalanced
Current Consumption	360 mA (Standby), 710 mAmps (Receive), 1.5 Amps (1 Watt Transmit), 5.5 Amps (25 Watt Transmit) @ 12 Volts DC
Transmitter	
RF Power Output	Two settings between 1 and 25 Watts on a per Channel basis
Maximum Frequency Deviation	Wide band: $\pm 5$ KHz, Narrow Band: $\pm 2.5$ KHz, Channel Selectable
Frequency Stability	Wide Band: $\pm 0.0005\%$ , Narrow band: $\pm 0.0003\%$

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Frequency Response	Within +1, -3dB of 6dB/Octave pre-emphasis from 0.3 to 3.0KHz, 1 KHz reference
Signal To Noise Ratio	Wide Band: More than 50dB at 1 KHz 70% Modulation Narrow Band: More than 45dB at 1 KHz 70% Modulation
Modulation Distortion	Less than 3% at 1 KHz 70% Modulation
Spurious and Harmonics	More than 70dB below rated power
<b>Receiver</b>	
Intermediate Frequencies	1 <sup>st</sup> IF: 48.5 MHz, 2 <sup>nd</sup> IF: 455 KHz
Frequency Stability	Wide Band: $\pm 0.0005\%$ , Narrow band: $\pm 0.0003\%$
Sensitivity	Less than 0.4 $\mu$ V for 20 dB noise quieting Less than 0.3 $\mu$ V for 12 dB SINAD
Squelch Sensitivity	Less than 0.25 $\mu$ V
Selectivity	More than 70dB at $\pm 25$ KHz
Blocking	More than 90 dB
Intermodulation	More than 70 dB
Spurious Response	More than 70 dB
AF Response	Within +1, -3dB of 6dB/Octave de-emphasis from 0.3 to 3.0 KHz, 1 KHz reference
AF Distortion	Less than 5% at 1 KHz 70% modulation
Signal to Noise Ratio	Wide band: More than 50dB at 1 KHz 70% modulation Narrow Band: More than 45dB at 1 KHz 70% modulation
<b>Power Supply Module</b>	
AC Input Voltage	240 $\pm$ 20% Volts AC 48 - 62 Hz. (Others available upon request)
Output Voltage	13.65 Volt DC
Power Supply Current	10 Amps at 13.65 $\pm$ 2% Volts DC
Over Voltage Protection	14.5 - 16.5 Volts
Over Current Protection	10.55A $\pm$ 0.45 Amps
Low Voltage Battery Release	9.8 Volts - 10.6 Volts
<b>Physical</b>	
Unit Dimensions	483 (W) x 343 (D) x 132 (H) mm (excluding protrusions)
Shipping Dimensions	570 (W) x 540 (D) x 315 (H) mm
5208L Weight	11.3 Kg's
Shipping Weight:	12.9 Kg's
Approvals	
Imark Stock #	See Table Above
Inclusions	Operators Manual, AC Cable, Transceiver, Power Supply
Options	Automatic Identification Module, Lightning Protection, Transient Barrier, Back-Up Batteries