Focket Focketfm1yxt7hb2

Focket 0.5M-470MHz Signal Generator Instruction Manual

Model: Focketfm1yxt7hb2

1. Introduction

This instruction manual provides comprehensive guidance for the safe and effective use of the Focket 0.5M-470MHz Signal Generator. This device is designed for generating radio frequency signals across a broad spectrum, supporting various modulation types. Please read this manual thoroughly before operating the device and retain it for future reference.

2. Safety Information

- Always use the specified 12VDC power supply. Using an incorrect power source may damage the device and pose a safety risk.
- Do not expose the device to moisture, rain, or extreme temperatures.
- Avoid opening the device casing. Servicing should only be performed by qualified personnel.
- Ensure proper ventilation around the device during operation.
- Disconnect power before cleaning or when the device is not in use.

3. Product Overview

The Focket 0.5M-470MHz Signal Generator is a versatile instrument capable of producing signals with adjustable frequency and power, along with various modulation options. Its robust ABS construction ensures durability for long-term use.

3.1 Key Features

- **Frequency Range:** 0.5 MHz to 470 MHz
- **Signal Power:** -70 dBm to 132 dBm
- **Modulation Types:** Amplitude Modulation (AM), Frequency Modulation (FM), Phase Modulation (PM), Pulse Modulation

- **Built-in Tone Modulation:** 800 Hz
- **Power Supply:** 12VDC
- **Material:** Durable ABS casing

3.2 Components

Figure 1: Front view of the Focket 0.5M-470MHz Signal Generator. It features a display screen, an RF output connector, and a numerical keypad for input.

Figure 2: Angled view of the signal generator, showing its integrated metal stand for elevated viewing and operation.

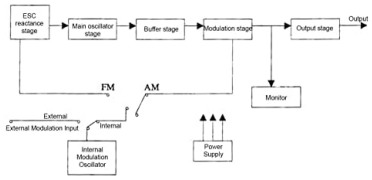

Figure 3: Internal block diagram of the signal generator, detailing stages such as ESC reactance, main oscillator, buffer, modulation, and output stages, along with power supply and external modulation inputs.

Figure 4: Detailed view of the RF output (RFOUT) BNC connector, where the generated signal is emitted.

Figure 5: Close-up of the control panel, showing the numerical keypad (0-9), decimal point, and function buttons (F1-F4) for setting parameters.

Figure 6: The signal generator shown alongside its 12VDC power cord, which connects to the DC input port.

4. Specifications

Parameter	Value
Item Type	Signal Generator
Brand	Focket

Model Number	Focketfm1yxt7hb2
Frequency Range	0.5 MHz to 470 MHz
Signal Power	-70 dBm to 132 dBm
Built-in Tone Modulation	800 Hz
Power Supply	12VDC
Material	ABS
Package Dimensions	20 x 15 x 10 cm

5. Setup

1. **Unpacking:** Carefully remove the signal generator and its accessories from the packaging. Verify that all components listed in the package list are present: 1x Signal Generator, 1x Power Cord.
2. **Power Connection:** Connect the provided 12VDC power cord to the DC input port on the signal generator. Plug the other end of the power cord into a suitable 12VDC power outlet.
3. **RF Output Connection:** Connect your test equipment (e.g., spectrum analyzer, oscilloscope, antenna) to the RFOUT BNC connector on the front panel using an appropriate coaxial cable.
4. **Positioning:** Place the signal generator on a stable, flat surface. The integrated stand can be used to angle the device for better visibility.

6. Operating Instructions

The signal generator is controlled via its front panel display and keypad.

6.1 Power On/Off

- To power on, ensure the 12VDC power supply is connected. The device should automatically power on and display the default frequency.
- To power off, disconnect the 12VDC power supply.

6.2 Setting Frequency

1. Use the numerical keypad (0-9) to enter the desired frequency.
2. The decimal point button can be used for precise frequency entry.
3. The device supports 7-digit frequency input. For example, to set 439.0125 MHz, you would enter '4390125' (representing 439012.5 KHz). The display will show the entered value.
4. Press an appropriate function key (e.g., F1, F2, F3, F4) or an 'Enter' equivalent (if available, not explicitly detailed in provided data) to confirm the frequency.

6.3 Adjusting Signal Power

The signal power can be adjusted within the range of -70 dBm to 132 dBm. Specific controls for power adjustment are typically accessed via function keys or dedicated buttons. Refer to the on-screen menu or specific button labels for power level control.

6.4 Selecting Modulation Type

The device supports AM, FM, PM, and Pulse modulation. Use the function keys (F1-F4) or menu options to cycle through or select the desired modulation type. The 800 Hz tone modulation is built-in and can be activated as needed.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or solvents.
- **Storage:** When not in use, store the signal generator in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect the power cord and connectors for any signs of damage.

8. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on	No power supply, incorrect power supply, faulty power cord	Ensure 12VDC power supply is correctly connected and functional. Check power cord for damage.
No RF output signal	Incorrect frequency/power settings, faulty output cable, device malfunction	Verify frequency and power settings. Check the coaxial cable connection. If problem persists, contact support.
Display is blank or unreadable	Power issue, display malfunction	Check power connection. If power is present and display remains blank, contact support.

9. Warranty and Support

For warranty information or technical support, please refer to the documentation provided at the time of purchase or contact your retailer. Keep your purchase receipt as proof of purchase.