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## REVISION HISTORY

<u>REVISION</u>	<u>DESCRIPTION</u>	<u>DATE</u>
1.0	Initial Release	June 06
1.1	Spec update	Dec 06
1.2	Updated format and specifications	Sept 09

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## 1. OVERVIEW

The 7702 series RF passive splitters provide inexpensive distribution of RF signals in a 1x2 or 1x4 configuration (designated by SP2 or SP4 in the part number). The operating frequency range is 40 MHz to 2200 MHz allowing both IF and L band satellite signal distribution. When equipped with the “-LNB” option, DC power can be passed through any of the outputs to the input for LNB power (input signal limited to 400 – 2200 MHz). Diode protection ensures that no conflicts arise in the event that multiple connections provide DC power.

The 7702SP2 and 7702SP4 occupy one card slot and can be housed in a 1RU frame which will hold up to three modules, a 3 RU frame which will hold up to 15 modules or a standalone enclosure.

### Features:

- Low Noise distribution of RF signals from 40MHz to 2200MHz (400 – 2200 MHz with -LNB option)
- Can operate as a splitter or combiner
- Passive design for high reliability
- Protocol independent – transmits all modulation formats
- Fully hot swappable from front of frame
- -LNB option passes DC power to LNB

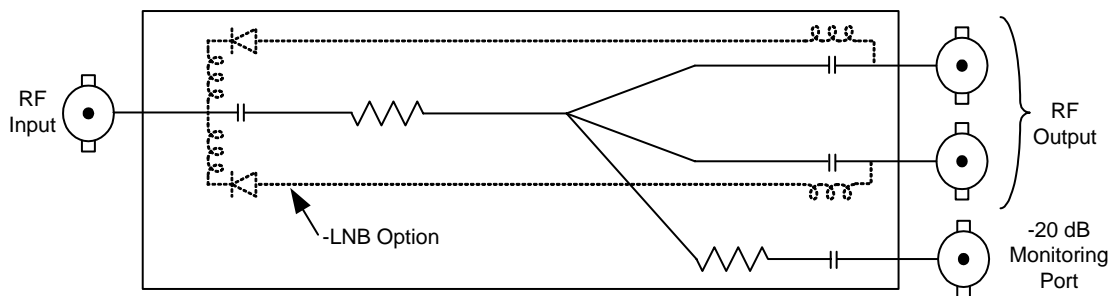


Figure 1-1: 7702SP2 Block Diagram

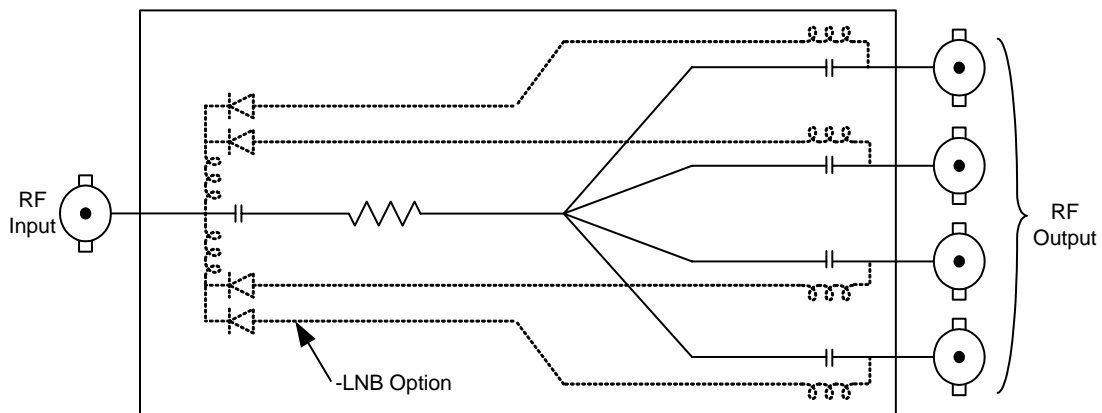


Figure 1-2: 7702SP4 Block Diagram

## 2. INSTALLATION

The 7702SP2 passive splitter comes with a companion rear plate that has 4 BNC type, 75 Ohm connectors (F type connectors are optional). The 7702SP4 active splitter comes with a companion rear plate that has 5 BNC type, 75 Ohm connectors (F type connectors are optional). For information on mounting the rear plate and inserting the module into the frame, see section 3 of the 7700FR chapter.

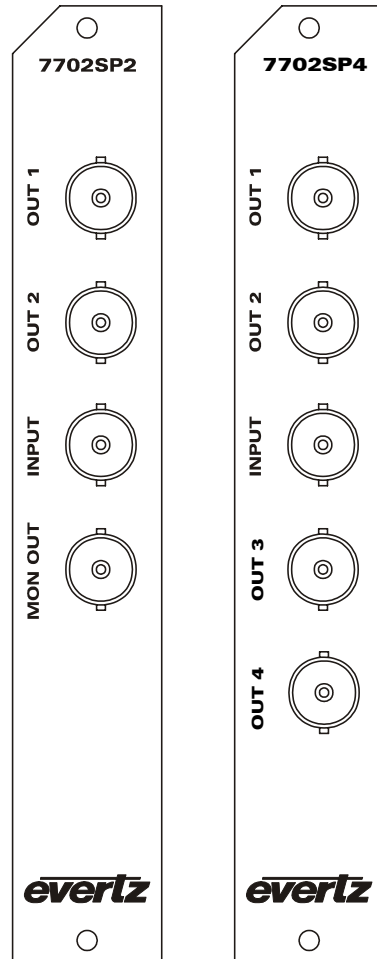


Figure 2-1: Rear Plates

**RF INPUT:** Input BNC type connector for satellite IF or L band RF signals. This signal can be an analog signal, with any modulation format. See section 3.1 for further details.

**RF OUTPUT:** Two (SP2) or four (SP4) BNC connectors for signal distribution of the passively split input signal. Unused RF Output ports must have 75 Ohm terminations attached. See section 3.2 for further details.

**MONITOR:** (7702SP2 only) Signal monitoring port with signal level 20 dB below RF Input port level.

### 3. SPECIFICATIONS

#### 3.1. RF INPUT

<b>Number of Inputs:</b>	1
<b>Connector:</b>	BNC, F type and SMA optional
<b>I/O Impedance:</b>	75 Ohm, 50Ω optional
<b>Input Frequency Range:</b>	40 – 2200 MHz
-LNB Version:	400 – 2200 MHz
<b>Return Loss:</b>	
250-2200MHz:	> 12 dB

#### 3.2. RF OUTPUTS

<b>Number of Outputs:</b>	
7702SP2:	2 + 1 Monitor
7702SP4:	4
<b>Connector:</b>	BNC, F-Type and SMA optional
<b>Insertion Loss:</b>	
7702SP2:	5 ± 1 dB
7702SP4:	8 ± 1 dB
<b>Monitor:</b>	-20dB ± 2dB referenced to the input port
<b>I/O Impedance:</b>	75 Ohm, 50Ω optional
<b>Return Loss:</b>	
250-2200MHz:	>12 dB
<b>Frequency Response:</b>	± 1 dB

#### 3.3. PHYSICAL

**350FR, 7700FR-C, and 7800FR frame mounting:**  
**Number of slots:** 1

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