



# TL-EMS-BPx1

## Description:

The TL-EMS-BPx1 is a high performance RF broadband signal switcher with a bandwidth of DC to 1000 MHz (Figure 1). Use the wireless remote control to select between the original signal or an in-line device connected to this signal. The in-line device could be any device to modify the original signal. Figure 3 shows a basic application. The TL-EMS-BPx1 is controlled by a remote (see Figure 2). Indoor control distance is up to 100 ft, through typical building material (non-metallic); up to 300 feet with extended control cable (Figure 2); and up to 1000 feet with no obstructions between Tx and Rx.

The TL-EMS-BPx1 has high-quality RF characteristics, which makes it suitable for commercial, industrial, experimental, and residential applications. It distributes and switches RF signals without spectrum loss or distortion, and high isolation between input signals. The input to output insertion loss is 1 dB.

Figure 3 shows a basic application of the TL-EMS-BPx1 where it is used in a building for TV distribution. User(s) with the remote can select the original signal or the modified version of the signal to feed through the distribution system.



Figure 1: TL-EMS-BPx1 N50 shown

## Features:

- Simple installation - includes input selection LED
- Ability to select between original signal and modified version of original signal using wireless push-button RF remote control (FCC Certified)
- Indoor, wireless remote control with easy to install RF receiver
- Excellent RF characteristics
- Compatible with Tin Lee RF products to integrate local content or modify the Cable TV spectrum
- Multiple remote controls can operate in the same zone
- Each remote control has a unique ID
- Two-year limited warranty
- Custom computer control option (RS-232)
- Available in 75 ohms and 50 ohms impedance

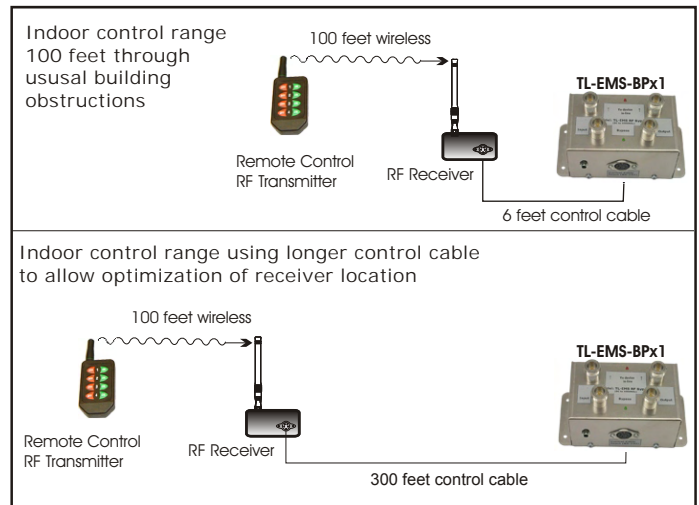
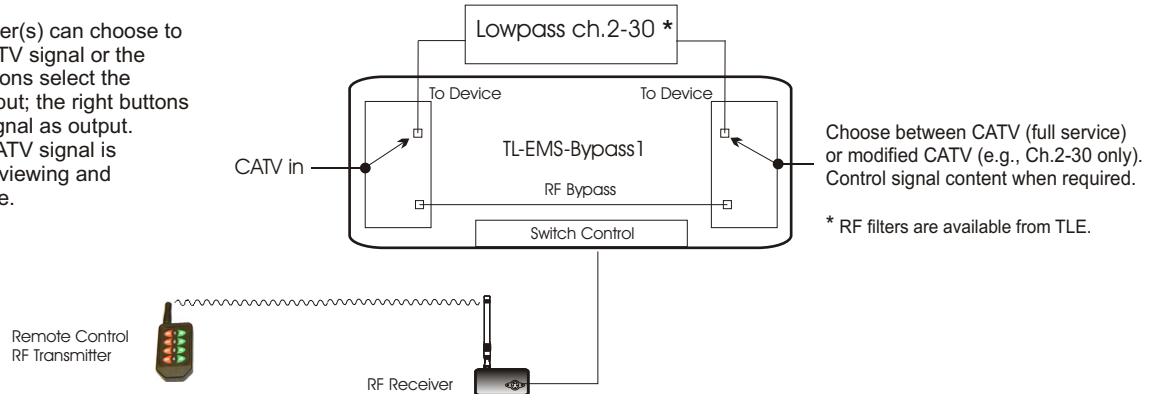


Figure 2: Remote Control Range

Figure 3. Using the TL-EMS-BPx1

Using the remote control, user(s) can choose to output either the original CATV signal or the modified signal. The left buttons select the original CATV signal as output; the right buttons select the modified CATV signal as output. Example application: The CATV signal is modified for limited channel viewing and controlled by wireless remote.





### Product Applications

- Residential and Small building:** allows user remote selection between original signal and user modified signal
- Commercial:** Remote selection of original or modified signal for distribution to e.g., TV show room, entertainment venues
- Industrial:** CATV and Broadcast TV/FM device testing and signal comparison
- Emergency and Security Systems:** RF broadband signal switcher for monitoring and messaging applications

### Product Specifications

<b>Bandwidth and Flatness</b>	DC-1000 MHz +/- 1 dB
<b>Number of Ports</b>	<b>Four (4):</b> Input, Output, Device ports
<b>Input Signal Level</b>	10 dBmV
<b>Insertion Loss (Input-Output)</b>	1 dB (in/out) or 1 dB and device thru loss
<b>Isolation (Input to Input)</b>	> 65 dB
<b>Isolation (Output-Output)</b>	> 65 dB
<b>Input Return Loss;</b>	>18 dB
<b>Output Return Loss:</b>	>18 dB
<b>RF Connectors, Impedance</b>	F-type female , 75 ohms
<b>Operating Power</b>	9 V DC (Power Adapter Incl.)
<b>Power Consumption</b>	1 Watt
<b>Remote Control:</b>	Transmitter - CMD HHLR-315 Receiver - TL-Rx-315 (Rs232)
<b>Max. Input Power to Switch</b>	1 Watt
<b>Switching Speed</b>	20 ms
<b>Dimensions (in):</b>	4.5 x 2.5 x 3.5 (114.3 mm x 63.5 mm x 88.9 mm)
<b>Other Models</b>	TL-EMS-BPx2 and TL-EMS-BPx3

### Order Information Model # TL-EMS-BPx1

Description: Bypass RF Switch with remote control.

#### TL-EMS-BPx1 basic package list (see figure 4)

1. One TL-EMS-BPx1 Switch
  2. One 6-foot shield control cable \* (circular plugs at ends)
  3. One TL-Rx-315 Receiver (FCC compliant and Industry Canada certified) with mounting bracket
  4. Two CMD-HHLR-315 Transmitters \* (FCC certified)
  5. One +9 V DC Power adapter (UL certified)
- \* Includes user manuals for TL-EMS-2x4, Tx and Rx.

#### \*Options:

- Control cable** - length can be specified up to 300 ft.
- Remote Control** - additional units available with same configuration and ID or "custom"

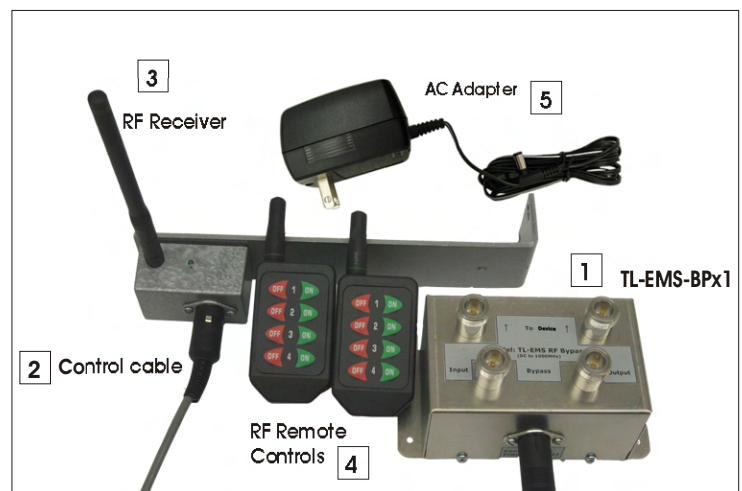


Figure 4

