

## 34945A/34945EXT microwave switch/attenuator driver

This module allows you to control switches attenuators, and other devices external to the 34980A. The 34945A/ 34945EXT provides the power and control signals for many of the most popular microwave switches and attenuators. One 34945A/34945EXT combination can drive up to 64 switch coils—that's 32 standard SPDT switches. The 34945A/EXT can be extended by adding additional 34945EXT boards. The first 34945EXT is powered by the mainframe. You can add up to seven additional 34945EXT boards with user supplied power. Multiple switch operations are performed in sequential order, or for faster, simultaneous switching, you can connect an external power supply to the 34945EXT.

The Y1150A-Y1155A distribution boards enable simple connections to the external switches. The distribution boards plug onto the 34945EXT and are used to route the power and control signals from the driver module to the switches using standard cables.

The 34945A/34945EXT also has sensing capabilities that allows read back of the actual position of the switch or attenuator. Drive signals for LED indicators are also provided to give a visual indication of the switch position.

The following microwave switches and attenuators are supported with the Y1150AY1155A distribution boards:

- N181x/U9397x series SPDT switches
- 8762/3/4 series SPDT switches (screw terminals)
- 8765x coaxial switches
- 8766x/8767x/8768x multiport switches
- 87104x/106x/L710xx/L720xx multiport switches
- 87406x series matrix switches
- 87204x/206x series multiport switches
- 87606x series matrix switches
- 87222x/L7222 transfer switches
- 849x and 8490x series attenuators
- Other switches and devices through individual screw terminal connections

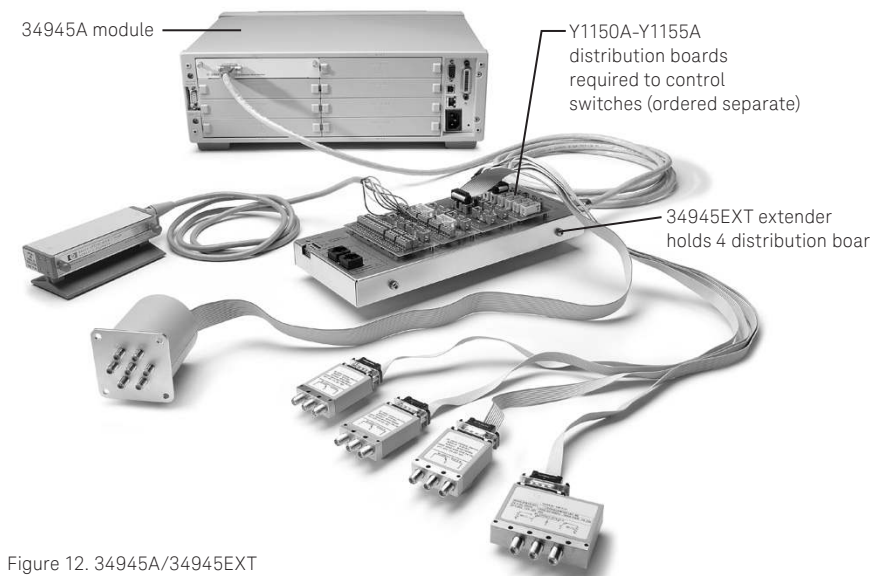


Figure 12. 34945A/34945EXT microwave switch/attenuator driver

### General specifications

#### 34945EXT switch drive (64 channels, low side drive mode)

Driver off voltage (max)	30 V
Driver off leakage current	500 $\mu$ A
Driver on current (max)	600 mA
Driver on voltage (max)	0.5 V @ 600 mA

#### 34945EXT switch drive (64 channels, TTL drive mode)

Hi output voltage	3 V @ Iout = 2 mA
Lo output voltage	0.4 V @ Iin = 20 mA
Lo input Current	20 mA

#### 34945EXT position indicator sense inputs

Channels	64
Lo input voltage (max)	0.8 V
Hi input voltage (min)	2.5 V
Input resistance	>100 k $\Omega$ @ Vin $\leq$ 5 V >20 k $\Omega$ @ Vin > 5 V

#### Maximum input voltage

30 V

#### 34945EXT switch drive power supply (34945EXT powered by 34945A)

Voltage	24 V nominal (external power supply required for switches needing more than 24 V)
Current	100 mA continuous + 200 mA (15 msec pulse, 25% duty cycle)

#### 34945EXT external power connection

Voltage range	4.75 V to 30 V
Current limit	2 A

#### LED indicator (Current mode drivers)

Channels	64
Supply voltage	5 V nominal
LED drive current	5 mA nominal (prog 1-20 mA)

Driver compliance voltage 0.8 V

#### 34945EXT dimensions

11.2" x 4.5" x 1.5" high with distribution boards installed

#### Maximum 8 34945 Ext's per mainframe

Switch drive control also available in L4445A and L4490A/91A RF Switch Platform.

NOTE: See Application Note, "Configuring an RF/Microwave Switch System," literature number 5989-2272EN, for configuration details.