The TES10000-50 is a Laboratory-quality, RF SPDT Switch with 50dB isolation and only 3dB insertion loss at 10GHz. The switch is non-reflective at all ports

The TES10000-50 is the smallest USB microwave switch available and is also priced significantly below the current market offerings.

The TES10000-50 has a pulse modulator function selectable from a menu, the pulse width and period can be set from 250nS to 8.0S in 250nS increments. The units high switching speed is better than 6nS.

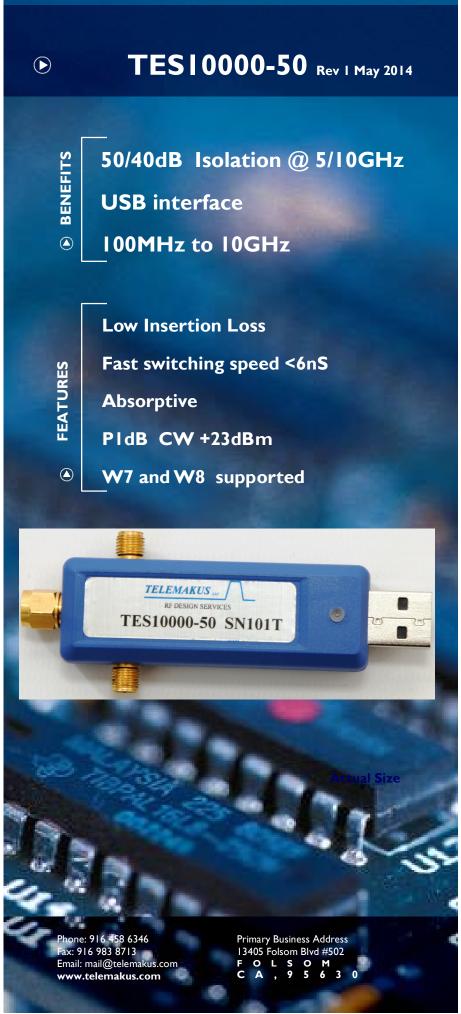
Applications include switching between two RF sources or loads and pulse modulation for amplifier testing.

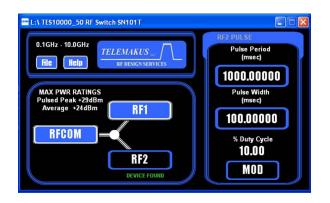
The optional HUB allows the switch to remain in a given state even after the host PC is removed from the system.

The switch also contains 0.5GB of flash memory used for installation files, test data and other supporting documentation. Drivers, utilities and documentation are available on the switch itself.

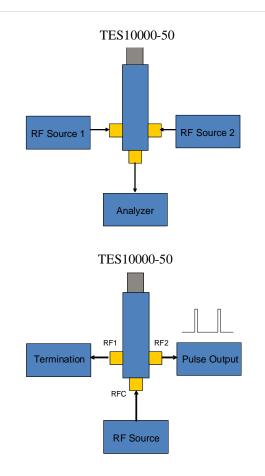
Full results of factory test data are stored in each units flash memory and is available through the USB interface.







Easy to use graphic interface with push button controls



**Typical Configurations** 



## TES | 0000-50 Rev | May 2014

| Ordering information |                 |                 |           |  |  |
|----------------------|-----------------|-----------------|-----------|--|--|
| Model                | Frequency       | Max Input       | Isolation |  |  |
| TES10000-50          | 100MHz to 10GHz | +23dBm          | 50dB      |  |  |
| TES6000-30           | 100MHz to 6GHz  | +33d <b>B</b> m | 30dB      |  |  |
| TES7000-50           | 100MHz to 7GHz  | +24dBm          | 50dB      |  |  |
| TES3000-60           | 100MHz to 3GHz  | +23dBm          | 60dB      |  |  |

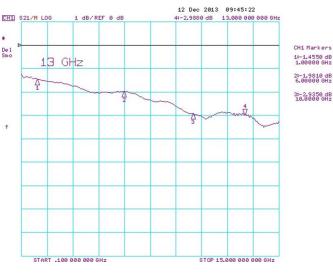
| Specifications Specifications |   |  |  |  |
|-------------------------------|---|--|--|--|
| Parameter                     | Specification                             |  |  |  |
| Freq Range                    | 100MHz to 10GHz                           |  |  |  |
| Isolation                     | >50dB @ 5GHz, >40dB @ 10GHz, >30dB @15GHz |  |  |  |
| Interface                     | USB 2.0                                   |  |  |  |
| Current                       | I 50mA @5V Vbus(USB)                      |  |  |  |
| High IP3                      | +48dBm @ 10GHz                            |  |  |  |
| Insertion Loss                | <3dB @10GHz, <4dB @15GHz                  |  |  |  |
| Balance RFC-RFI/RFC-RF2       | <0.1dB at 10GHz                           |  |  |  |
| IdB Compression               | 23dBm                                     |  |  |  |
| Max Switching Power           | 23dBm                                     |  |  |  |
| Switching Time (10/90% RF)    | <6nS                                      |  |  |  |
| Return Loss                   | -15dB @ 10GHz                             |  |  |  |
| RF Common Connector           | SMA Male                                  |  |  |  |
| RFI and RF2 Connector         | SMA Female                                |  |  |  |
| USB Connector                 | Mini A                                    |  |  |  |

| Environmental              |                 |  |  |  |
|----------------------------|-----------------|--|--|--|
| Temperature Range          | -40 to +55 degC |  |  |  |
|                            |                 |  |  |  |
|                            |                 |  |  |  |
| Not Environmentally sealed |                 |  |  |  |



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## TES10000-50 Typical



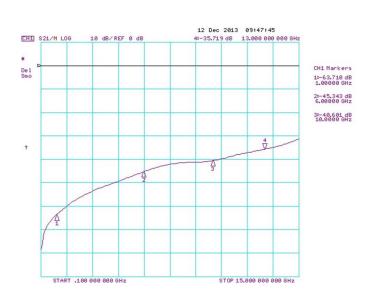


Insertion loss RFC-RF1

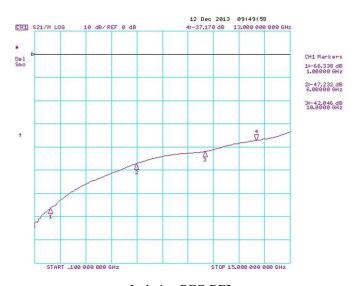
Insertion loss RFC-RF2



Amplitude Balance RFC/1-RFC/2 0.1dB/div



Isolation RFC-RF1



Isolation RFC-RF2