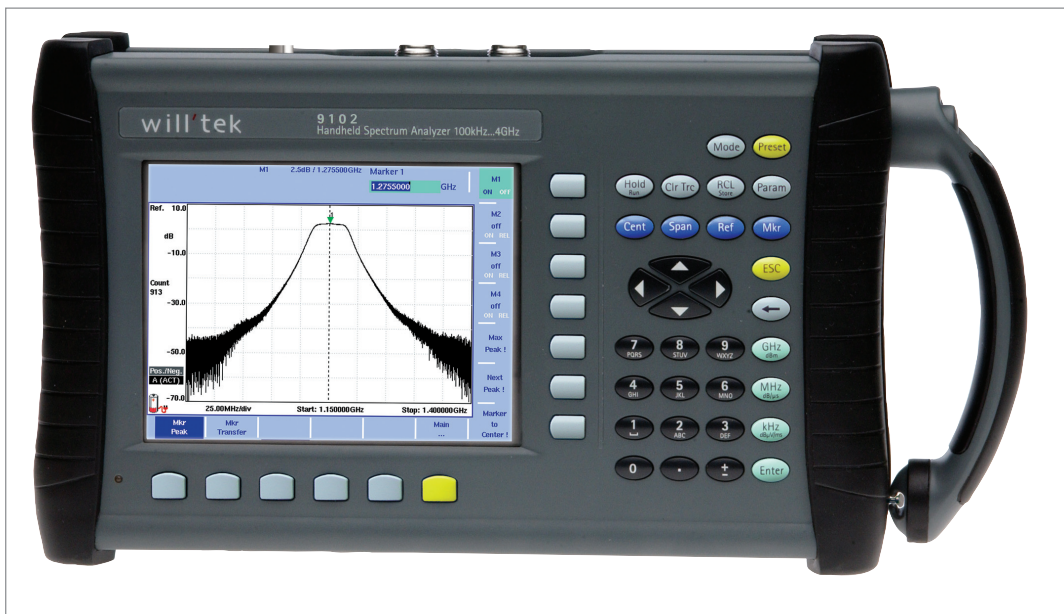


Testing a passive device in the transmission mode of Willtek's 9100 Series Handheld Spectrum Analyzer



boosting wireless efficiency

Testing a passive device in transmission mode

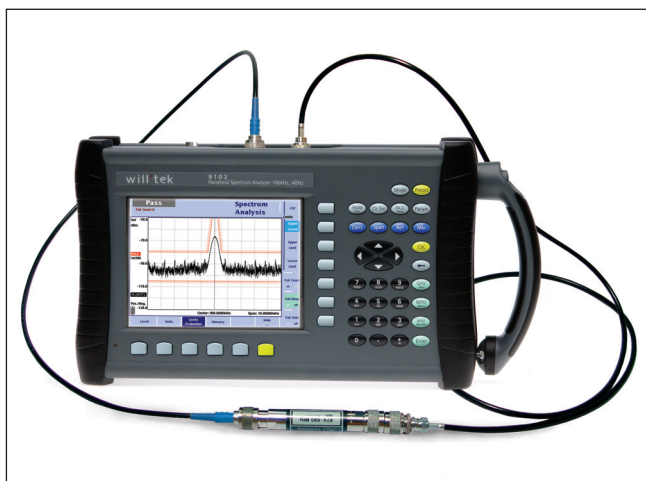
In the transmission mode of the 9102 and 9103 you can test the frequency behaviour of active and passive devices. An example for an application of this mode is testing the frequency behaviour of a bandpass filter which transmits a band of frequencies and blocks or absorbs all other frequencies not in the specified band.

Note: The transmission mode is available on the 9102 and 9103 Handheld Spectrum Analyzers (Tracking and VSWR/DTF edition) and is model-specific.

To test the frequency behaviour of a bandpass filter proceed as follows:

1. Push the **MODE** function key.
The Mode menu appears.
2. Select **Tracking ... > Transmission**.
The Transmission main menu appears. Establish a cable connection between the RF IN and the RF Out connectors.
3. In the Transmission main menu press the **Tracking Generator** softkey.
4. In order to eliminate slight ripples in the display press the **Normalize A** softkey until "on" is highlighted. The message "Normal.d" on the left side of the result display indicates that the display is normalized.
5. Open the connection between the RF in and the RF out connectors and connect the bandpass filter to the instrument.

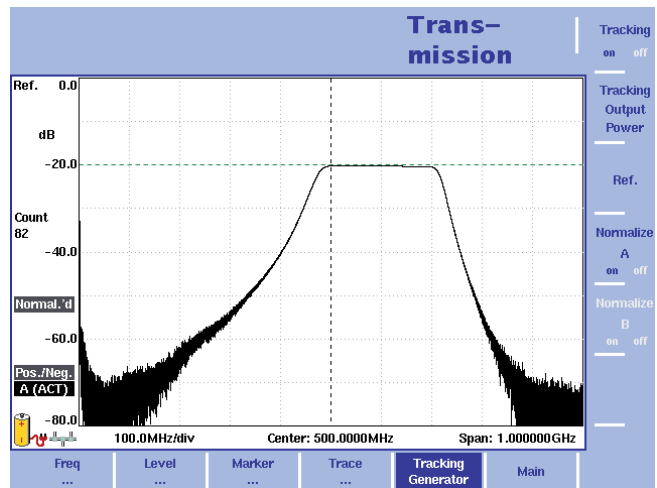
The following picture shows the bandpass filter measurement setup.



6. In order to examine the signal displayed in more detail you can change the center frequency. Furthermore you can change the parameters for level, tracking output, start and stop frequency, span and hardware attenuation. For detailed descriptions of these processes, refer to your 9102 or 9103 user's guide.

Note: If you change measurement parameters, e.g. tracking output, frequency settings or attenuation, it may be necessary to repeat the normalizing procedure. If this is the case, the message "Normalize" will be displayed against a red background on the left side of the result display.

7. The result display shows the frequencies which are transmitted and the frequencies which are blocked by the bandpass filter.





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