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# Willtek 8381 Griffin UMTS Down Converter



Enables model tuning for UMTS using Griffin Series receivers

Extends the receiver's frequency to 2.2 GHz

Measures up to five downlink channels at 100 km/h without jeopardising "Lee compliance"

Delivers equal performance to the receivers as their native network types

Ensures Quality of Service(QoS) later on with accurate RF prediction model alignment

Works in conjunction with Willtek Hindsite™ software

Willtek's Griffin UMTS Down Converter extends the capabilities of the Griffin Series receiver to allow it to cater for UMTS propagation measurement. The receiver is able to quickly and accurately perform a wide range of measurement functions in the RF channel, helping operators to maximise their infrastructure's capabilities.

The Griffin UMTS Down Converter, working in conjunction with the Griffin Series receiver, enables companies to pretest the available frequencies of a 3G infrastructure prior to network implementation.

### Extends the Griffin Fast Measurement Receiver to a new frequency range: UMTS

Willtek's 8381 Griffin UMTS Down Converter is an expansion instrument that fits easily onto the 8301 Griffin Fast Measurement Receiver to provide a powerful UMTS downlink test solution. The receiver helps operators to maximise the performance of their infrastructure. All that is required to allow the selection of the 8381 Griffin UMTS Down Converter is the latest version of the Griffin Front Panel software or Willtek Hindsite software. The 8381 Griffin UMTS Down Converter enables the Griffin Series receivers' frequency to extend to 2.2 GHz and allows the measurement of up to five downlink channels at high speed.

### Powerful

The instrument is able to cover the entire downlink range and more. It can measure up to five channels at 60 mph or 100 km/h, without jeopardising "Lee compliance". This enables operators and network infrastructure companies to verify RF performance within the new frequency.



### Compatible

The UMTS Down Converter is compatible with existing Griffin software, including the new Hindsite Survey Solution, which allows for positional data to be correlated to field and signal strengths for model-tuning work on a range of network technologies.

### High performing

The instrument does not reduce performance on the Griffin Fast Measurement Receiver, other than a slight increase of the noise floor, enabling equal performance to the receiver's native network types. Its accurate RF prediction model alignment ensures quality of service (QoS).

### Specifications

#### Basic data

Input frequency range	2000 to 2200 MHz
Output frequency range	800 to 1000 MHz
Noise figure	< 8 dB; typ. 5.5 dB
Overall gain	0 to 3 dB; typ. 2.0 dB
Gain variation	
over freq. at 25°C	< 1 dB, typ. 0.6 dB
over freq. from 0°C to 40°C	< 2 dB; typ. 0.6 dB
over level range < -30 dBm	< 0.2 dB
Nominal input impedance	50 Ω
Nominal output impedance	50 Ω
RF in/RF out VSWR	< 2 : 1
RF in/RF out return loss	> 10 dB
Image rejection	> 70 dB; typ. 90 dB
Spurious response rejection	> 40 dB
Phase noise at 200 kHz offset	< -100 dB/Hz
LO level at RF input	< -80 dBm
Blocking level	> 80 dB
Maximum RF input level	
linear range (1dB comp.)	> -15 dBm
without damage	> +10 dBm
External LO reference input	10 MHz, e.g. Griffin Receiver
Frequency error	based on reference

The UMTS Down Converter does not result in obvious performance reduction on the 8301 Griffin Fast Measurement Receiver

### General data

Supply voltage	5.5 to 9 V
Supply current	< 300 mA; typ. 165 mA
Operating temperature range	0 to 50°C
Dimensions	
UMTS Down Converter only	235 x 170 x 35 mm
with Griffin Receiver	235 x 170 x 126 mm

### Ordering information

8381 Griffin UMTS Down Converter for 8301, UMTS: 2000 to 2002 MHz	M 248 650
8301 Griffin Fast Measurement Receiver	
US cellular, GSM 900	M 100 500
8010 Hindsite RF Propagation Test Software	
MS-Win 95, 98, NT 4.0	M 897 825
20 W CW Signal Generator, battery powered (ST24SV) UMTS Downlink	M 100 707

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