Make multi-function and high performance audio measurements with the new U8903B audio analyzer. The U8903B comes with low residual distortion of less than –110 dB and a wide analysis bandwidth of 1.5 MHz, offering the highest resolution available for two-channel measurements. And options such as Bluetooth® audio measurements, digital audio and the latest voice quality analysis, you get a test solution that is configurable to meet your specific application needs for audio and beyond.

Key features

- Low residual distortion of less than –110 dB
- Wide measurement bandwidth: measure at DC or from 10 Hz to 96 kHz or 1.5 MHz (with wide bandwidth option N3431A)
- Flexible configuration with digital options and up to eight analog analyzer channels
- Bluetooth option for Bluetooth audio testing. (For more information, refer to the U8903B Performance Audio Analyzer, Bluetooth Option - Product Fact Sheet, 5992-1014EN)
- Test sequence function to implement automatic test
- Speech and audio quality measurements with perceptual objective listening quality assessment (POLQA) and perceptual evaluation of speech quality (PESQ) standards
- Digital audio interface options (AES3/SPDIF or DSI)
- Logic level range of 1.2 V to 3.3 V (DSI)

The U8903B’s test sequence function mode comes with a selection of preconfigured measurements, allowing users to select the most frequently used test sequences for their daily measurement.
### Key specifications

#### Analog generator
- **Connection type**: XLR (balanced), BNC (unbalanced), BNC (common mode)
- **Grounding**: True floating or grounded
- **Waveform**: Sine, dual sine, variable phase, square, SMPTE IMD, DFD, noise, arbitrary, multi-tone
- **Frequency**: 5 Hz to 80 kHz
- **Output**: 0 to 16 V rms (balanced), 0 to 8 V rms (unbalanced)
- **Residual THD+N at 1 kHz, 1 V rms**: ≤ —108 dB, typically ≤ —110 dB (at 23 °C ± 5 °C)
- **Residual noise (20 Hz to 20 kHz bandwidth)**: ≤ 1.3 μV rms

#### Digital audio
- **AES/ SPDIF data format**: Consumer or professional
- **DSI data format**: FS, left justified, right justified, DSP
- **Logic level (DSI)**: 1.2 V to 3.3 V
- **Audio bits**: 8 bit to 24 bit
- **Input/output level (AES3/ SPDIF)**: Balanced 0.3 V pp to 5.1 V pp, Unbalanced 0.3 V pp to 2.5 V pp
- **Connector type**: AES3/ SPDIF XLR (balanced), BNC (unbalanced), TOSLINK (optical), DSI 25-pin male D-SUB connector

### Ordering information

#### Product model
- **Description**: Performance audio analyzer, 2 channels
- **Standard shipped items**: USB cable, Power cord, Keysight U8903B performance audio analyzer product reference CD-ROM, Certificate of calibration
- **Measurement channel options**: Analog analyzer, 4 channels, Analog analyzer, 8 channels, Digital audio card
- **Bundling options**: Performance audio analyzer with 4 analog analyzer channels, digital audio (AES3/ SPDIF and DSI digital audio), Performance audio analyzer; 2 channels with 50 Ohm impedance (increase bandwidth to 1.5 MHz)

#### Optional software
- **Product model**: N3431A, N3432A, N3433A, N3434A, N3435A, N3436A
- **Description**: Wide bandwidth option - 1.5 MHz (fixed perpetual license), POLQA measurement software (fixed perpetual license), POLQA & PESQ measurement software (fixed perpetual license), AES3/ SPDIF and DSI digital audio (fixed perpetual license), AES3/ SPDIF digital audio (fixed perpetual license), DSI digital audio (fixed perpetual license)

#### Optional accessories
- **Description**: Cable assembly, Type-N (male) to Type-N (male), DC to 6.0 GHz, Male BNC to male BNC cable; 1.2 m, Male BNC to male RCA cable, 2 m, Male XLR to female XLR cable; 2 m, Cable, digital serial interface, Cable, accessory - male XLR-2 male BNC analyzer, 0.26 m, Cable, accessory - female XLR-2 male BNC generator, 0.26 m, BNC accessory kit, Rackmount kit, Calibration + uncertainties + guardbanding, ANSI Z540-1-1994 calibration, Commercial calibration with test result data

### Ordering information (continued)

#### Optional hardware
- **Product model**: U8903B-AUX
- **Description**: Two monitor outputs and one auxiliary output (DC)

**www.keysight.com/find/U8903B**

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