

Background :

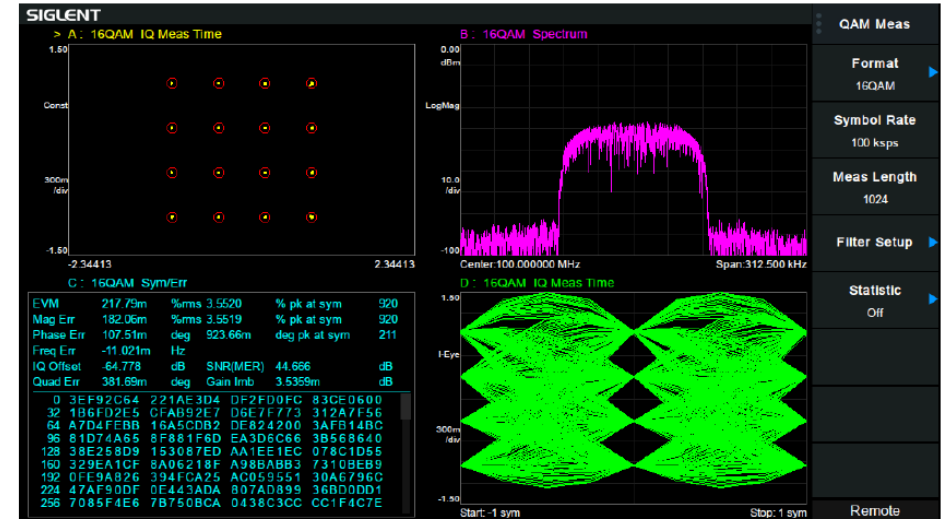
Digital Modulation is also known as IQ-, Complex- or Vector-Modulation, Amplitude and phase are modulated simultaneously. Through this it is possible to transmit more information within the same bandwidth, hence a better spectral efficiency and higher bit rates are possible. Some examples are BPSK, QPSK, QAM with their different derivatives.

However, this comes at the cost of increasing complexity in system design, test, and creation. More versatile test equipment is needed to deal with the different vector modulations in use. Both phase and amplitude have to be acquired and analyzed. The modulation format and symbol rate used are specific to the application, and various transmit and receive filter designs are in place to keep the spectrum clean.

The SVA1000X-DMA option is designed to analyze a wide range of digital modulations. This reach from simple BPSK till much more complex 64QAM-modulation. The implemented measurement parameter setup, powerful error analysis, including EVM, and clear displays help to understand the signal appearance.

Modulation Analysis Mode

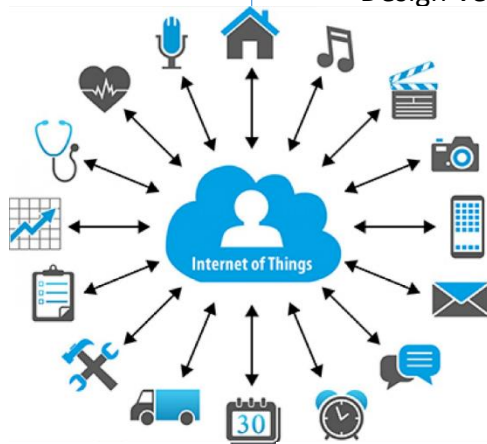
AM/FM,ASK/FSK/PSK/MSK/QAM Vector Signal EVM Measurement



Typical Customers / Market:

Digital Modulation is widely used for many cellular and wireless networking systems as well as for digital video standards, wireless key systems, remote controls, etc.

Today, the most interesting field and market is Digitization which includes IoT, Artificial Intelligence and Industrial Automation.



Application:

- Transmitter Analysis
- Filter test
- Amplifier Test
- Design Verification

Related Products:



SDG6000X + SDG-6000X-IQ

- IQ-Baseband Signal Generation



SSG3021X-IQE

- IQ-RF-Signal Generation

Application:

- IQ-Up-Converter Module
- Receiver Testing
- Amplifier Testing