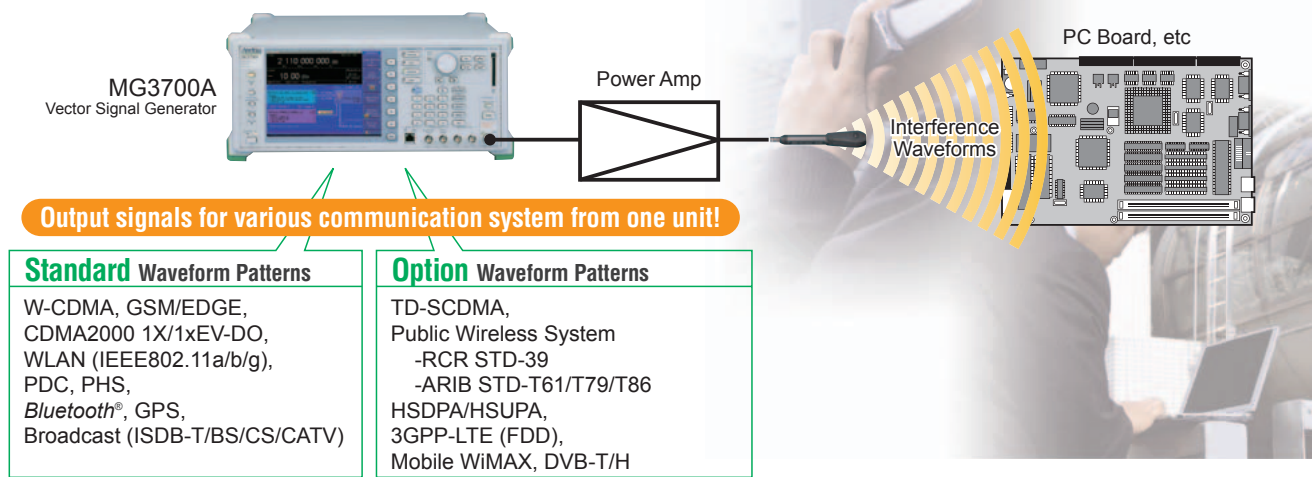


# Proposal for Signal Generator for Immunity Test

## MG3700A Vector Signal Generator

Wireless equipment, such as mobile phones, wireless LANs, etc., is flooding the world market and there are increasing reports of wireless equipment interfering with the operation of other nearby electrical equipment. In this type of confused radio-wave environment, stable, continuous, error-free operation is a key index of product quality.

However, providing signal generators for running immunity tests on every type of communications technology is a major capital expense. The MG3700A is the ideal signal source for generating interference waveforms for immunity tests, because one unit supports almost all the common world communications technologies.



### Advantages of MG3700A Vector Signal Generator

#### Cost Reduction

Lower initial investment because MG3700A has built-in waveform patterns supporting wireless LAN, mobile GSM/EDGE, W-CDMA, broadcasting, etc., unlike other systems requiring purchase of separate waveform-pattern signal generator for each communications technology.

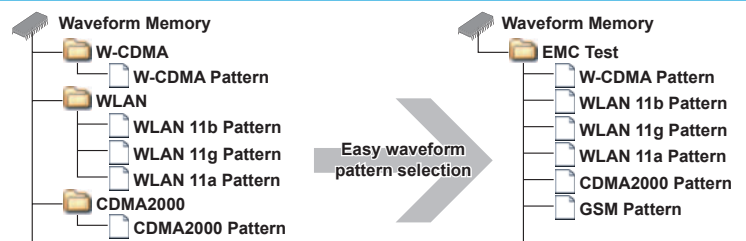
#### Reduced Labor (1)

Small external waveform memory greatly reduces operating efficiency because loading waveform patterns from external HDD to waveform memory when changing signals wastes time.

MG3700A large waveform memory of 1 GB (option : 2 GB) is at least 4 times bigger than competing signal generator and supports instantaneous waveform pattern switching, greatly reducing labor and cutting measurement time.

#### Reduced Labor (2)

General signal generators have hierarchical folders each with a waveform pattern for a communications technology. Navigating up and down between folders and selecting new waveform patterns is troublesome and time wasting. The MG3700 uses a flat hierarchy with waveform patterns in one folder for more efficient work.



#### Easy Operation

Setting signal-generator parameters for the various communications technologies is difficult and a lot of time is wasted making new settings every time a signal is switched.

The MG3700A has built-in waveform patterns for each communications technology and each pattern is output by the following simple operation sequence: "Select waveform pattern" ⇒ "Set frequency." ⇒ "Set Output level"

## Main Performance and Functions

Frequency Range	250 kHz to 3 GHz (standard) 250 kHz to 6 GHz (option)
Wideband Vector Modulation Bandwidth	120 MHz (using built-in baseband generator) 150 MHz (using external IQ)
High Level Accuracy	Absolute Level Accuracy: $\pm 0.5$ dB Linearity: $\pm 0.2$ dB (typ.)
Waveform Add Function	Outputs two internally added signals, such as wanted signal+interference signal, wanted signal+AWGN
Hard Disk	Built-in 40 GB hard disk
Arbitrary Waveform Memory	1 GB = 256 Msamples/ch (standard) 2 GB = 512 Msamples/ch (option)
Mass	$\leq 15$ kg (excluding options)

## Ordering Information (Abstract)

Main Frame	MG3700A	Vector Signal Generator
		Standard built-in patterns: W-CDMA, GSM/EDGE, <i>Bluetooth</i> , CDMA2000 1X/1xEV-DO, GPS, WLAN (IEEE802.11a/b/g), PDC, PHS, Broadcast (ISDB-T/BS/CS/CATV)
Hardware Option	MG3700A-011	Upper Frequency 6GHz (3GHz $\rightarrow$ 6GHz)
	MG3700A-021	ARB Memory Upgrade 512 Msamples
Software Option	MX370001A	TD-SCDMA Waveform Pattern
	MX370002A	Public Wireless System Waveform Pattern
	MX370101A	HSDPA IQproducer
	MX370102A	TDMA IQproducer
	MX370103A	CDMA2000 1xEV-DO IQproducer
	MX370105A	Mobile WiMAX IQproducer
	MX370106A	DVB-T/H IQproducer
	MX370108A	LTE IQproducer

\*:IQproducer is PC application software for generating waveform patterns.

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