

Ranger Product Selection Guide

The VIAVI Solutions Ranger product line provides live analysis and offline forensic RF post-processing in a compact, all-in-one solution. Ranger is available in a variety of configurations to meet customer test and analysis requirements, as well as suit their budget. Software options, accessories, and extended care plans are also available.



Selecting Your Ranger System

To get started, select the Ranger System that best suits your needs.

Ranger Family Commercial Packages – 6 GHz System Configurations

Catalog #142297; Ranger, 6GHz/6GHz, Single, 9.6TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- One (1) mA-6806 AXIe 6 GHz Vector Signal Transceiver module to provide one 6 GHz transmit channel and one 6 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space to store up to 2.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

1. External monitors are not included in the system; available as optional accessories.

Ranger Family Commercial Packages – 6 GHz System Configurations continued

Catalog #142530; Ranger, 6GHz/6GHz, Single, 12.8TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- One (1) mA-6806 AXIe 6 GHz Vector Signal Transceiver module to provide one 6 GHz transmit channel and one 6 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space to store up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142627; Ranger, 6GHz/6GHz, Dual, 9.6TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- Two (2) mA-6806 AXIe 6 GHz Vector Signal Transceiver modules to provide two independent 6 GHz transmit channels and two 6 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space per module. Each module is capable of storing up to 2.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA-6806 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboards, and mice

Catalog #142548; Ranger, 6GHz/6GHz, Dual, 12.8TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- Two (2) mA-6806 AXIe 6 GHz Vector Signal Transceiver modules to provide two independent 6 GHz transmit channels and two 6 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space per module. Each module is capable of storing up to 3.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA-6806 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboards, and mice

1. External monitors are not included in the system; available as optional accessories.

Ranger Family Commercial Packages – 30 GHz System Configurations

Catalog #142383; Ranger, 6GHz/30GHz, Single, 9.6TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- One (1) mA-6806 AXIe 6 GHz Vector Signal Transceiver module to provide one 6 GHz transmit channel and one 6 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space to store up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142638; Ranger, 6GHz/30GHz, Single, 12.8TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- One (1) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter module to provide one 6 GHz transmit channel and one 30 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space to store up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142635; Ranger, 6GHz/30GHz, Dual, 9.6TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- Two (2) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter modules to provide two independent 6 GHz transmit channels and two 30 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space per module. Each module is capable of storing up to 2.5 hours of signal recordings.
- mA-3011 Dual Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Independent control of each mA-6A30 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboards, and mice

1. External monitors are not included in the system; available as optional accessories.

Ranger Family Commercial Packages – 30 GHz System Configurations continued

Catalog #142641; Ranger, 6GHz/30GHz, Dual, 12.8TB, Com

This system provides customers with the following:

- Commercial version of Signal WorkShop™
- Two (2) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter modules to provide two independent 6 GHz transmit channels and two 30 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space per module. Each module is capable of storing up to 3.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Independent control of each mA-6A30 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice

Ranger Family DoD Packages – 6 GHz System Configurations

Catalog #142518; Ranger, 6GHz/6GHz, Single, 9.6TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- One (1) mA-6806 AXIe 6 GHz Vector Signal Transceiver module to provide one 6 GHz transmit channel and one 6 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space to store up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142631; Ranger, 6GHz/6GHz, Single, 12.8TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- One (1) mA-6806 AXIe 6 GHz Vector Signal Transceiver module to provide one 6 GHz transmit channel and one 6 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space to store up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

1. External monitors are not included in the system; available as optional accessories.

Ranger Family DoD Packages – 6 GHz System Configurations continued

Catalog #142629; Ranger, 6GHz/6GHz, Dual, 9.6TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- Two (2) mA-6806 AXle 6 GHz Vector Signal Transceiver modules to provide two independent 6 GHz transmit channels and two 6 GHz receive channels
- Two (2) mA-3A01 AXle Mass Storage modules with 9.6 TB of storage space per module. Each module is capable of storing up to 2.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA-6806 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboards, and mice

Catalog #142633; Ranger, 6GHz/6GHz, Dual, 12.8TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- Two (2) mA-6806 AXle 6 GHz Vector Signal Transceiver modules to provide two independent 6 GHz transmit channels and two 6 GHz receive channels
- Two (2) mA-3A01 AXle Mass Storage modules with 12.8 TB of storage space per module. Each module is capable of storing up to 3.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA-6806 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #22155082; Ranger, 6GHz/6GHz, 3 Channel, 12.8TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- Three (3) mA-6806 6 GHz Vector Signal Transceiver AXle modules to provide three 6 GHz transmit and receive channels
- One (1) mA-3A01 AXle Mass Storage module with 12.8 TB of storage space to store up to 3.5 hours of signal recordings
- Embedded host module with USB connections to support one (1) external monitor¹, keyboard, and mouse

1. External monitors are not included in the system; available as optional accessories.

Ranger Family DoD Packages – 30 GHz System Configurations

Catalog #142634; Ranger, 6GHz/30GHz, Single, 9.6TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- One (1) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter module to provide one 6 GHz transmit channel and one 30 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space to store up to 2.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142640; Ranger, 6GHz/30GHz, Single, 12.8TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- One (1) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter module to provide one 6 GHz transmit channel and one 30 GHz receive channel
- One (1) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space for up to 3.5 hours of signal recordings
- One (1) mA-3011 Single Embedded Host module with one 16G-256G-i7 processor to provide the following:
 - Control the mA-6A30 and mA-3A01 module
 - USB connections to support one (1) external monitor¹, keyboard, and mouse
- System ships in a hard transit case with backup software CDs, manual CD, keyboard, and mouse

Catalog #142637; Ranger, 6GHz/30GHz, Dual, 9.6TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- Two (2) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter modules to provide two independent 6 GHz transmit channels and two 30 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 9.6 TB of storage space per module. Each module is capable of storing up to 2.5 hours of signal recordings.
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA-6A30 and mA-3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice
- System ships in a hard transit case with backup software CDs, manual CD, keyboards, and mice

1. External monitors are not included in the system; available as optional accessories.

Ranger Family DoD Packages – 30 GHz System Configurations continued

Catalog #142643; Ranger, 6GHz/30GHz, Dual, 12.8TB, DOD

This system provides customers with the following:

- DoD version of Signal WorkShop™
- Two (2) mA-6A30 AXIe 6 GHz Vector Signal Transceiver with 30 GHz Downconverter modules to provide two independent 6 GHz transmit channels and two 30 GHz receive channels
- Two (2) mA-3A01 AXIe Mass Storage modules with 12.8 TB of storage space per module. Each module is capable of storing up to 3.5 hours of signal recordings
- One (1) mA-3011 Dual Embedded Host module with two 16G-256G-i7 processors to provide the following:
 - Independent control of each mA 6A30 and mA 3A01 module
 - USB connections to support two (2) external monitors¹, keyboards, and mice

1. External monitors are not included in the system; available as optional accessories.

Optional Software

VIAVI offers the following optional software to enhance and expand the analysis capabilities of your Ranger system:

Offline Signal WorkShop™

Offline Signal WorkShop™ is installed on a personal computer (PC) to perform offline tasks such as detailed post-analysis of captured signals or to create composite waveforms, which can be transferred to a Ranger System for playback. Offline Signal WorkShop is an ideal accompaniment to Ranger systems for situations in which a team is capturing signals in the field and requires detailed signal analysis from a remote location.

Catalog #142299; Offline Signal WorkShop Software; Commercial Version

The Offline Commercial version of Signal WorkShop is used to analyze signals recorded from a Ranger system that contains the commercial version of Signal WorkShop.

Catalog #142527; Offline Signal WorkShop Software; DoD Version

The Offline DoD version of Signal WorkShop analyzes signals recorded from a Ranger system that contains the DoD and the commercial version of Signal WorkShop.

Optional Software continued

Electromagnetic Spectrum (EMS) Sequencer

The Electromagnetic Spectrum (EMS) Sequencer option is a stand-alone product that can be installed alongside Signal WorkShop™ on a Ranger system, or on a Windows PC. The Sequencer will interface to Signal WorkShop to automatically coordinate monitor, record, and playback activities for one or more Systems running Signal WorkShop. The Sequencer can sequence a series of RF events; for example, allowing users to play any number of waveforms on any number of units in any order.

Catalog #22155974; Ranger Sequencer Software CD Window OS

This version of the EMS Sequencer is installed in a computer that with a Windows Operating System. The Sequencer option can be used independently to create RF signal sequences or in combination with an Offline version of Signal WorkShop to create the RF signal used in the sequence.

Catalog #22155975; Ranger Sequencer Software CD Linux OS

This version of the EMS Sequencer is installed in a Ranger system. The EMS Sequencer can be operated independently from Signal WorkShop, however, for optimal performance, VIAVI recommends item 2215597, the Ranger Sequencer License Node which creates an interface between Signal WorkShop and the EMS Sequencer. Dual Ranger systems require two of this option.

Catalog #22155977; Ranger Sequencer OPT License SWS (License Node)

This option creates an interface between Signal WorkShop and the EMS Sequencer application. Dual Ranger systems require two of this option.

Ranger - Optional Accessories

Accessory Kits

Ranger offers the following accessory kits which have been carefully packaged to ensure you have all the accessories needed for various test scenarios.

Catalog #22158783; Ranger 40 GHz Field Accessory Kit

The Ranger 40 GHz Accessory Kit contains an extensive selection of RF adapters, antennae, attenuators, and cables. This kit includes the following items accessory items:

Qty	Catalog Number	Item
1	22153993	Antenna GNNS Mag Mount 3M RG174 SMA-Male
1	22159363	Torque Wrench 5/16 8 inch-lbs
1	22159364	Adapter RF 18GHz N Male to N Male
1	22159365	Adapter RF 18GHz N Male to N Female

Accessory Kits continued

Qty	Catalog Number	Item
1	22159366	Adapter RF 18GHz N Female to N Female
2	22159371	Adapter RF 18GHz 2.9mm Female to N Female
2	22159372	Adapter RF 18GHz 2.9mm Female to N Male
4	22159374	Adapter RF 40GHz 2.9mm Female to 2.9mm Female
2	22159375	Adapter RF 40GHz 2.9mm Male to 2.9mm Female RA
4	22159376	Adapter RF 40GHz 2.9mm Male to 2.9mm Female
1	22159353	Cable Armored 40GHz 2.92mm 10ft
2	22159354	Cable 40GHz 2.92mm 3ft
1	22159355	Cable Armored 40GHz 2.92mm 25ft
1	22159356	Cable Armored 40GHz 2.92mm 50ft
1	22159357	Atten Fixed 18GHz 30dB 50W N M-F
1	22159358	Atten Fixed 18GHz 20dB 25W N M-F
1	22159359	Atten Fixed 18GHz 10dB 25W N M-F
1	22159360	Atten Fixed 40GHz 10dB 20W 2.9mm M-F
1	22159362	40GHz Broadband Omnidirectional Antenna

Catalog #22158784; Ranger Mast System Kit

The Ranger Mast System Kit is a portable antenna mast system that has been designed to be deployed by one person. This kit includes the following items:

Qty	Catalog Number	Item
1	22159378	Antenna Mast, AL1 Standard Series System, Hard Transit Case
1	22159380	Antenna Mast, Primary Guy-Kit-6 Meter-Red
1	22159381	Antenna Mast, Top Plate-200 Series NATO-SINCGARS

Ranger Optional Accessories

The following accessories are available for purchase:

Catalog Number	Item
22159353	Cable Assy, Armored, 40GHz, 2.92mm, 10ft
22159354	Cable Assy, 40GHz, 2.92mm, 3ft
22159355	Cable Assy, Armored, 40GHz, 2.92mm, 25ft
22159356	Cable Assy, Armored, 40GHz, 2.92mm, 50ft
22159357	Atten, Fixed, 18GHz, 30dB, 50W, N M-F
22159358	Atten, Fixed, 18GHz, 20dB, 25W, N M-F
22159359	Atten, Fixed, 18GHz, 10dB, 25W, N M-F
22159360	Atten, Fixed, 40GHz, 10dB, 20W, 2.9mm M-F
22159362	Antenna, Baton, Omni, 20MHz-40GHz, 2.9mm
22153993	Antenna, GNNS Mag Mount 3M RG174 SMA-Male
22159363	Torque Wrench, 5/16", 8 inch-lbs
22159364	Adapter, RF, 18GHz, N Male to N Male
22159365	Adapter, RF, 18GHz, N Male to N Female
22159366	Adapter, RF, 18GHz, N Female to N Female
22159371	Adapter, RF, 18GHz, 2.9mm Female to N Female
22159372	Adapter, RF, 18GHz, 2.9mm Female to N Male
22159374	Adapter, RF, 40GHz, 2.9mm Female to 2.9mm Female
22159375	Adapter, RF, 40GHz, 2.9mm Male to 2.9mm Female RA
22159376	Adapter, RF, 40GHz, 2.9mm Male to 2.9mm Female

Ranger System Care Plans

Ranger is covered by the VIAVI standard 1-year manufacturer warranty. VIAVI offers the following extended warranty and calibration plans for new Ranger systems:

Silver Care Plan

Silver Care – 1-Year to 4-Years

The Silver Care Plan includes the following:

- One (1) additional year, up to four (4) additional years, of warranty following the standard 1-year manufacturer warranty
 - One (1) annual calibration for each year of Silver Care Plan coverage
-

Ranger Module Care Plans

VIAVI offers the following extended warranty plans for replacement/spare modules:

Bronze Care Plan

Bronze Care – 1-Year to 4-Years

The Bronze Care Plan includes the following:

- One (1) additional year, up to four (4) additional years, of warranty following the standard 1-year manufacturer warranty
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Silver Care Plan

Silver Care – 1-Year to 4-Years

The Silver Care Plan includes the following:

- One (1) additional year, up to four (4) additional years, of warranty following the standard 1-year manufacturer warranty
 - One (1) annual calibration for each year of Silver Care Plan coverage
-

Production Calibration and Test Data

VIAVI offers the following for purchase with new systems or replacement/spare modules:

142720; CD with mA-6806 VST Production Calibration Data

- CD with a soft copy of the mA-6806 production test data; the CD label will reference the serial number of the mA-6806 module.
-

142721; CD with mA-6A30 VST w/30GHz DC Production Calibration Data

- CD with a soft copy of the mA-6A30 production test data; the CD label will reference the serial number of the mA-6A30 module.
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NOTE: Dual Ranger systems contain either two (2) mA-6806 modules or two (2) mA-6A30 modules; the optional calibration data on Dual Ranger systems includes two CDs, one for each set of calibration data.

AXle Modules/Spares

The following are available for purchase for use with Ranger systems as spares, or to update the configuration or an existing Ranger.

Catalog Number	Item
112311	mA-1305 AXle; 5 Slot Chassis
140905	mA-3A01; AXle; 3 x 3.2TB Mass Storage
142529	mA-3A01; AXle; 4 x 3.2TB Mass Storage
141204	mA-6806 AXle; 6GHz VST Single
141752	mA-3011; 16G-256G-i7 Embedded Host
141778	mA-3011; 16G-256G-i7 Dual Embedded Host
142539	mA-6A30 AXle; 6GHz VST; 30GHz Downconverter

NOTE: Please contact VIAVI if you intend to update the configuration of an existing Ranger to ensure you are purchasing everything that you need to properly update the system.



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