CQL 1064 nm Raman Product Comparison

	CQL Narc-ID	CQL Gen-ID	CQL Max-ID
Size / Weight	18.5 cm x 15 cm x 7.9 cm / 1.7 kg 7.28 in x 5.9 in x 3.11 in / 3.7 lbs	18.5 cm x 15 cm x 7.9 cm / 1.7 kg 7.28 in x 5.9 in x 3.11 in / 3.7 lbs	18.5 cm x 15 cm x 7.9 cm / 1.7 kg 7.28 in x 5.9 in x 3.11 in / 3.7 lbs
Excitation Wavelength	1064 nm	1064 nm	1064 nm
Operating Temperature	-20 to 50°C intermittent, +40°C continuous	-20 to 50°C intermittent, +40°C continuous	-20 to 50°C intermittent, +40°C continuous
Battery Type	7.2 V Li-ion, 3400mAH, >5 hours	7.2 V Li-ion, 3400mAH, >5 hours	7.2 V Li-ion, 3400mAH, >5 hours
Disposable Batteries (optional)	not available	CR123a (QTY: 6)	CR123a (QTY: 6)
Adjustable Laser Power (Auto Mode)	5, 10, 25, 50, 75, 100%	5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100%	5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100%
Algorithm Type	SenseAlert (alarm screening)	Identification	Identification and SenseAlert (alarm screening)
Spectral Library Size	>1,100 items	>4,800 items	>13,000 items
Included Libraries	• Cutting Agent • Narcotic • Narcotic Precursor • Pharmaceutical • Solvent • Steroid	• Cutting Agent • Narcotic • Narcotic Precursor • Pharmaceutical • Solvent • Steroid • Biomolecule • Explosive • Explosive Precursor • General Chemical • General Precursor • Household Chemical • Industrial Chemical 1 • Polymer	• Cutting Agent • Narcotic • Narcotic Precursor • Pharmaceutical • Solvent • Steroid • Biomolecule • Explosive • Explosive Precursor • General Chemical • General Precursor • Household Chemical • Industrial Chemical 1-4 • Polymer • CWA/CWA Precursor • TIC/TIM
Environmental Ruggedness	IP-68 & MIL810G	IP-68 & MIL810G	IP-68 & MIL810G
Connectivity	USB and Wi-Fi	USB and Wi-Fi	USB and Wi-Fi
CommandSuite Fleet Management	●	●	●
QuickDetect Trace Colorimetric Detection	Optional (Narcotics only)	Optional (Narcotics & Explosives)	Optional (Narcotics & Explosives)
4C™ Precursor Monitoring	● (Narcotics only)	●	●
Touchscreen	●	●	●
Adjustable Nose Cone	Optional	●	●
User Login Privileges	●	●	●
Ability to Add to Library	●	●	●
Create Custom Applications	●	●	●
On-Board 5MP Camera	●	●	●
Manufacturer Warranty	24 months	36 months	36 months
24/7/365 Reachback Support	Included under active support	Included under active support	Included under active support
Software & Library Updates	Included for life of instrument	Included under active support	Included under active support

Rigaku
Analytical Devices

CQL Narc-ID

Confident presumptive identification for the field testing of controlled substances.

The Rigaku ResQ Narc-ID™ provides screening for narcotics, illicit drugs, cutting agents, or precursor chemicals in a simple and easy to use form factor. Utilizing 1064 nm Raman technology, means the CQL Narc-ID can scan colored, mixed, or dirty substances - even through colored packaging - keeping the user safe from exposure. Certified rugged, its easy to use operating software and SenseAlert alarm screening provide a non-technical user with a simple "red / green" result of a potential harmful material in less than one minute. Integrating the CQL Narc-ID into routine drug field testing, provides an advanced, yet simple experience, with unique features such as:

- **Identify bulk and trace levels of substances (with optional QuickDetect™)**

- **Add pictorial evidence using on-board camera for traceability**

- **Operate a streamlined GUI via button or touchscreen**

- **Transfer results via Wi-Fi to create a PDF report**

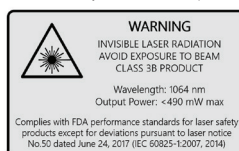- **Compatible with Rigaku's CommandSuite™ Fleet Management software**

CQL Narc-ID SPECIFICATIONS

Size	18.5 cm x 15 cm x 7.9 cm (7.28 in x 5.9 in x 3.11 in)
Weight	1.7 kg (3.7 lbs)
Excitation Wavelength	1064 nm
Spectral Resolution	~6-13 cm^{-1}
Spectral Range	200-2500 cm^{-1}
Spectrometer Type	Transmissive Volume Phase Grating
Detector	TE cooled InGaAs - 512 pixel
Operating Temperature	-20 to 50ºC Intermittent, +40ºC Continuous
Battery Type	7.2 V Li-ion, 3400mAH, >5 hours
Adjustable Laser Power (Auto Mode)	5, 10, 25, 50, 75, 100%
Auto Collection Mode	●
Algorithm Type	SenseAlert™ (alarm screening)
Spectral Library Size	>1,100 items
Included Libraries	Cutting Agent, Narcotic, Narcotic Precursor, Pharmaceutical, Solvent, Steroid
Material Category Types	Alarm, Warning/Precursor, Cutting Agent/Benign, Container
Configurable Library Categorization	●
Laser Safety Features	Laser Passcode, Scan Delay Timer, and Scan Timeout
Environmental Ruggedness	IP-68 & MIL810G
Connectivity to Desktop or Mobile Device	Waterproof USB-Type C / Wi-Fi / Peer-to-Peer
CommandSuite Fleet Management	Included on units #1 - #3. Available for purchase for greater quantities.
QuickDetect Trace Colorimetric Detection	Optional (Narcotics only)
4C™ Precursor Monitoring (Narcotics only)	●
Touchscreen	●
User Login Privileges	●
Ability to Add Materials to User Library	●
Create Custom Applications	●
On-board 5MP camera with LED flash	●
Polystyrene Self Test Reference Standard (default)	●
Adjustable Nose Cone (0mm -5.5mm)	Optional
Data Output Formats	.spc, .rrb, .pdf, .txt
Manufacturer Warranty	24 months
24/7/365 Reachback Support	Included under active support

CQL Narc-ID is not ITAR-restricted, though a U.S. Department of Commerce export license may be required for some countries.

WARNING
INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B PRODUCT
Wavelength: 1064 nm
Output Power: <490 mW max
Complies with FDA performance standards for laser safety products except for deviations pursuant to laser notice No.50 dated June 24, 2017 (IEC 60825-1:2007, 2014)

MADE IN THE U.S.A

Rigaku Analytical Devices, Inc.
Boston, MA

Toll Free: +1 855.785.1064
Direct: +1 781.328.1024
Email: handhelds@rigaku.com
Web: www.rigakuanalytical.com

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CQL Gen-ID

Optimum in-field analysis of general chemical threats.

The Rigaku CQL Gen-ID™ provides advanced analytical chemical identification of more common threats found by first responders or at the border. The advantage of 1064 nm Raman laser excitation means reduced fluorescence interference that often occurs when scanning impure or dirty mixtures. The CQL Gen-ID has the ability to identify unknown solids, liquids, powders, pastes, or gels - through packaging - against a comprehensive library of narcotics, explosives, household chemicals, precursors, and more. The CQL Gen-ID provides a cost-effective solution for departments that are looking for targeted chemical threat analysis, while also taking advantage of the following unique features:

- **Automatic mixture analysis of up to 5 components**

- **Identify bulk and trace levels of substances (with optional QuickDetect™)**

- **Add pictorial evidence using on-board camera for traceability**

- **Adjustable nose cone allows for scanning through different thickness and types of packaging**

- **Compatible with Rigaku's CommandSuite™ Fleet Management software**

Rigaku
Analytical Devices

CQL Gen-ID SPECIFICATIONS

Size	18.5 cm x 15 cm x 7.9 cm (7.28 in x 5.9 in x 3.11 in)
Weight	1.7 kg (3.7 lbs)
Excitation Wavelength	1064 nm
Spectral Resolution	~6-13 cm^{-1}
Spectral Range	200-2500 cm^{-1}
Spectrometer Type	Transmissive Volume Phase Grating
Detector	TE cooled InGaAs - 512 pixel
Operating Temperature	-20 to 50ºC Intermittent, +40ºC Continuous
Battery Type	Default: 7.2 V Li-ion, 3400mAH, >5 hours / Optional: CR123a (qty: 6)
Adjustable Laser Power (Auto Mode)	5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100%
Auto Collection Mode	●
Adjustable Laser Power (Manual Mode)	5-490 mW in 5 mW increments
Adjustable Exposure Time (Manual Mode)	200 to 7000 ms
Algorithm Type	Identification
Spectral Library Size	4000+ items
Included Libraries	Biomolecule (amino acids), Cutting Agent, Explosive, Explosive Precursor, General Chemical, General Precursor, Household Chemical, Industrial Chemical 1, Narcotic, Narcotic Precursor, Pharmaceutical, Polymer, Solvent, Steroid
Laser Safety Features	Laser Passcode, Scan Delay Timer, and Scan Timeout
Environmental Ruggedness	IP-68 & MIL810G
Connectivity to Desktop or Mobile Device	Waterproof USB-Type C / Wi-Fi / Peer-to-Peer
CommandSuite Fleet Management	Included on units #1 - #2. Available for purchase for higher quantities
QuickDetect™ Trace Colorimetric Detection	Optional (Narcotics & Explosives)
4C™ Precursor Monitoring	●
Touchscreen	●
Adjustable Nose Cone (0mm -5.5mm)	●
User Login Privileges	●
Ability to Add Materials to User Library	●
Create Custom Applications	●
On-board 5MP camera with LED flash	●
Polystyrene Self Test Reference Standard (default)	●
Data Output Formats	.spc, .rrb, .pdf, .txt
Manufacturer Warranty	36 months
24/7/365 Reachback Support	Included under active support
Software & Library Updates	Included under active support

CQL Gen-ID is not ITAR-restricted, though a U.S. Department of Commerce export license may be required for some countries.

WARNING
INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B PRODUCT
Wavelength: 1064 nm
Output Power: <490 mW max
Complies with FDA performance standards for laser safety products except for deviations pursuant to laser notice No.50 dated June 24, 2017 (IEC 60825-1:2007, 2014)

MADE IN THE U.S.A
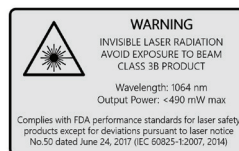
Rigaku Analytical Devices

Rigaku Analytical Devices, Inc.
Boston, MA

Toll Free: +1 855.785.1064
Direct: +1 781.328.1024
Email: handhelds@rigaku.com
Web: www.rigakuanalytical.com

CQL Max-ID

Offering an enhanced experience for maximum chemical threat analysis - in the palm of your hand.

The Rigaku CQL Max-ID™ provides advanced chemical analysis using the advantage of 1064 nm Raman laser excitation to reduce fluorescence interference in a tactical form factor. Providing a more streamlined workflow and enhanced algorithm, the CQL Max-ID is the tool of choice among safety and security agencies worldwide for identiying narcotics, explosives, chemical warfare agents, household chemicals, and more. With thousands of units in use in high stress environments by first responders, border protection, law enforcement, and the military, the CQL Max-ID provides more convenient and complete on-site chemical analysis, with the following unique benefits provided to the user:
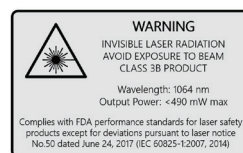
- **Compatible with Rigaku's CommandSuite™ Fleet Management software**
- **Automatic mixture analysis of up to 5 components**
- **Identify bulk and trace levels of substances (with optional QuickDetect™)**
- **Add pictorial evidence using on-board camera for traceability**
- **Adjustable nose cone allows for scanning through different thickness and types of packaging**

Rigaku
Analytical Devices

CQL Max-ID SPECIFICATIONS

Size	18.5 cm x 15 cm x 7.9 cm (7.28 in x 5.9 in x 3.11 in)
Weight	1.7 kg (3.7 lbs)
Excitation Wavelength	1064 nm
Spectral Resolution	~6-13 cm^{-1}
Spectral Range	200-2500 cm^{-1}
Spectrometer Type	Transmissive Volume Phase Grating
Detector	TE Cooled InGaAs - 512 pixel
Operating Temperature	-20 to 50ºC Intermittent, +40ºC Continuous
Battery Type	Default: 7.2 V Li-ion, 3400mAH, >5 hours / Optional: CR123a (qty: 6)
Adjustable Laser Power (Auto Mode)	5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100%
Auto Collection Mode	●
Adjustable Laser Power (Manual Mode)	5-490 mW in 5 mW Increments
Adjustable Exposure Time (Manual Mode)	200 to 7000 ms
Algorithm Type	Identification
Spectral Library Size	>13,000 items
Included Libraries	Biomolecule, Cutting Agent, CWA, CWA Precursor, Explosive, Explosives Precursor, General Chemical, General Precursor, Household Chemical, Industrial Chemical 1-4 , Narcotic, Narcotic Precursor, Pesticide, Pharmaceutical, Polymer, Solvent, Steroid, TIC/TIM
Configurable Library Categorization (ThreatAlert™)	●
Laser Safety Features	Laser Passcode, Scan Delay Timer, and Scan Timeout
Environmental Ruggedness	IP-68 & MIL810G
Connectivity to Desktop or Mobile Device	Waterproof USB-Type C / Wi-Fi / Peer-to-Peer
CommandSuite Fleet Management	Included on units #1 - #3. Available for purchase for greater quantities.
QuickDetect Trace Colorimetric Detection	Optional (Narcotics and Explosives)
4C™ Precursor Monitoring	●
Touchscreen	●
Adjustable Nose Cone (0mm -5.5mm)	●
User Login Privileges	●
Ability to Add Materials to User Library	●
Create Custom Applications	●
On-board 5MP camera with LED flash	●
Polystyrene Self Test Reference Standard (default)	● (Optional: Acetaminophen & Cyclohexane)
Data Output Formats	.spc, .rrb, .pdf, .txt
Manufacturer Warranty	36 months
24/7/365 Reachback Support	Included under active support
Software & Library Updates	Included under active support

CQL Max-ID is not ITAR-restricted, though a U.S. Department of Commerce export license may be required for some countries.

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