## **Handheld Raman System Comparison Chart**

A Full Range of Raman Solutions: Field Portable to Research Grade













System:	NanoRam <sup>®</sup>	NanoRam®-1064	TacticID®-N Plus	TacticID®-GP Plus	TacticID®-1064	TacticID®-1064 ST
Part #	840000341	840000953	840000994	840000972	840000920	840001134
Model #	BWS456-785	BWS456-1064	BWS496PS-785N	BWS496PS-785GP	BWS492-1064	BWS492-1064ST
Laser Excitation / Power	785nm / 300mW at 100% , adjustable in 10% increments	1064 nm / 420 +/- 30 mW at 100%, adjustable in 10% increments	785nm / 300mW at 100%, adjustable in 1% increments		1064 nm / 420 +/- 30 mW at 100%, adjustable in 1% increments	1064 nm / 450 +/- 30 mW at 100%, adjustable in 1% increments
Spectral Range / Resolution	176 - 2900 cm <sup>-1</sup> / ~9 cm <sup>-1</sup> @ 912nm	176 to 2500 cm <sup>-1</sup> / ~11 cm <sup>-1</sup> @ 1296nm	176 - 2900 cm <sup>-1</sup> / ~9 cm <sup>-1</sup> @ 912nm		176 to 2500 cm <sup>-1</sup> / ~11 cm <sup>-1</sup> @ 1296nm	
Detection	TE-Cooled Linear CCD Array	TE-Cooled InGaAs Array	Linear CCD Array		TE-Cooled InGaAs Array	
Standard Accessories	Point & Shoot, Liquid Vial Holder, Large Bottle Adaptor, Immersion Probe, Polystyrene Validation Cap	Point & Shoot, Vial Holder, Polystyrene Validation Cap, Contact Immersion Probe, Bottle Adaptor, Right Angle Adaptor	Point & Shoot, Liquid Vial Holder, TacPac, Polystyrene Validation Cap	Point & Shoot, Liquid Vial Holder, Right Angle Adaptor, Polystyrene Validation Cap	Point & Shoot, Liquid Vial Holder, Right Angle Adaptor, Polystyrene Validation Cap, Bottle Adaptor	Point & Shoot, Liquid Vial Holder, Right Angle Adaptor, See-through adaptor, Polystyrene Validation Cap, Bottle Adaptor
<b>Optional Accessories</b>	Tablet Holder, Right Angle Adaptor, Shoulder Bag	Large Spot Adaptor	Right Angle Adaptor	TacPac	Large Bottle Adaptor, Contact Immersion Probe,	
Power Adaptor	Rechargeable Li-ion Battery, >5 hrs operation	Rechargeable Li-ion, >4 hrs continuous operation or CR123 battery option	Rechargeable Li-ion Battery > 5 hrs operation or CR123 battery option. Car charger available		Rechargeable Li-ion, >4 hrs continuous operation or CR123 battery option. Car charger available	
Libraries	USP Library Included		>1,200 Narcotics, Prescription Drugs, Synthetics, Cutting Agents, Precursors & Solvents	10,000+ Hazardous and Non- hazardous Chemicals, Plus TacticID-N Libraries	13,000+ Narcotics, pharmceutical drugs, cutting agents, explosives*, precursors, toxic & common chemicals (third party libraries supported). Optional: CWAs*	
Barcode & Camera	Linear and 2D Standards Barcode Reader	1D and 2D standards	5 MP On-board Camera		5 MP On-board Camera and Barcode Reader	
Compliance	21 CFR Part 11 Compliant / IP64 Rated		IP65 Rated		IP68 (MIL STD 810g drop compliant)	
Operation Modes	Investigation Mode: "Match / No Match" (HQI) Identification Mode: "Pass / Fail" (p-value) Mixture Analysis	Investigation Mode: "Match / No Match" (HQI) Identification Mode: "Pass / Fail" (statistical p-value) Mixture Analysis	Scan Mode: "Match / No Match" (HQI) Mixture Analysis		Scan Mode: "Match / No Match" (HQI) Mixture Analysis Touch screen & Hard key input	Scan Mode: "Match / No Match" (HQI) Mixture Analysis See-through mode: ID through packaging Touch screen & Hard key input

**Handheld Raman Services:** 

Doc-Rev: 400000067-J (2020/07/27)

- Library Building
- Method Development
- User Training
- Annual Performance Validations
- **Customer Site Application Support**
- SOP Templates and Development

\*Note: Libraries may be subject to US Export control to some territories