

# Handheld Raman System Comparison Chart

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



System:	NanoRam®	NanoRam®-1064	TacticID®-N Plus	TacticID®-GP Plus	TacticID®-1064
Laser Excitation / Power	785nm / 300mW Max (adjustable in 10% increments)	1064 nm / 420 +/- 30 mW at 100%, adjustable in 10% increments	785nm / 300mW Max (adjustable in 1% increments)		1064 nm / 420 +/- 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
Optional Accessories	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, 12V DC, 2A Min >5 hrs operation	Rechargeable Li-ion, >4 hrs continuous operation or CR123 battery option	Rechargeable Li-ion Battery, 18V DC @ 1.67 A >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	10,000+ Hazardous and Non-hazardous Chemicals, Narcotics, Pharmaceutical Drugs, Cutting Agents, and Precursors available.
Barcode & Camera	Linear and 2D Standards Barcode Reader	1D and 2D standards	On-board Camera		
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 and Hard key input

## Handheld Raman Services:

- Library Building
- Method Development
- User Training
- Annual Performance Validations
- IQ, OQ, PQ, DQ Documentation
- Customer Site Application Support
- SOP Templates and Development