Key Specifications

		Terahertz Spectroscopic System		
		TAS7400SL (low-frequency system)	TAS7400SP (standard system)	TAS7400SU (broadband system)
Primary measurement applications		Spectroscopic analysis (transmission, reflectance)*1	Spectroscopic analysis (transmission, reflectance, ATR, transmission polarization analysis)*1	Spectroscopic analysis (transmission, reflectance, ATR)*1
Analytical object		Dielectric / chemical materials, others	Chemical / industrial / biological materials, pharmaceuticals, others	
Specimen dimensions	Transmission / reflectance modes	ϕ20 mm ～ 30 mm, < 10 mm thick	ϕ5 mm ～ 30 mm, < 10 mm thick	
	ATR mode	—	< ϕ5 mm (powders, liquids), ϕ5 mm ～20 mm, < 10 mm thick (solids)	
	Transmission / polarization analysis mode	—	ϕ5 mm ～ 30 mm, < 10 mm thick	
Performance	Frequency range*2	0.03 ～ 2 THz	0.1 ～ 4 THz	0.5 ～ 7THz (transmission / reflectance modes) 0.5 ～ 6.5THz (ATR mode)
	Frequency accuracy*2	< ±10GHz at 0.56THz	< ±10GHz at 1.4THz	< ±10GHz at 1.4THz
	Frequency resolution	1.9GHz / 7.6GHz	1.9GHz / 7.6GHz	1.9GHz / 7.6GHz
	Dynamic range*2 *5 (at peak frequency)	> 50dB	> 60dB	> 57dB (transmission / reflectance modes) > 55dB (ATR mode)
Throughput		200msec / scan		
Measurement accessories		Transmission mode / transmission polarization analysis mode (SP only): solid sample holder, liquid / powder cells*3, dry air purge kit*3, revolving holder*3 Reflectance mode: reflectance mirror, revolving holder*3 ATR mode (SP/SU only): powder holder		
Display		Spectral display(transmittance, reflectance, ATR*, phase difference, absorbance, absorption coefficient, complex refractive index, complex permittivity *ATR supports only SP/SU Time response display (electric field strength)		
Software*3		Transmission polarization analysis application, automatic control, FDA21CFR Part11 support, offline analysis		
Dry air purge		External dry air unit (external air supply necessary)		
External accessory*4		Thermal control accessory (2 models available: -10 ～ +80℃ and room temperature ～ +300℃)		
Controller		Standard OS: Windows7 Pro. 64bit		
Data file formats		Binary format, JCAMP-DX, SPC, CSV		
General specifications		Operating temperature range: +10℃ ～ +30℃, relative humidity: <80% (with no condensation) Storage temperature range: -10℃ ～ +50℃, relative humidity: <80% (with no condensation) Analysis unit power source: AC100V(100-120) / 200V(220-240)±10%, 50/60Hz, 180VA Measurement unit power source: AC100V(100-120) / 200V(220-240)±10%, 50/60Hz, 150VA (excluding PC) Analysis unit dimensions: 430(W) × 540(D) × 330(H) mm, weight: <30kg Measurement unit dimensions: 500(W) ×490(D) × 410(H) mm, weight: <40kg		

∗1:When purchasing a terahertz spectroscopic system, users must select at least one measurement accessory. ∗2: At temperatures of 23℃± 5℃ ∗3: Option ∗4: Option for transmission accessory only
∗5:The peak level frequency varies in each system, and the dynamic range on each frequency varies in each system. Frequency resolution: 7.6 GHz. Number of integration: 16384

Thermal Control Accessory Specification

	TAS1020	TAS1030	Notes
Temperature range	-10.0～+80.0℃	Room temperature ～ +300℃	—
Resolution	0.1℃	1.0℃	—
Control interface	USB		Can be controlled independently of system
Accessories supported	Transmission accessory		—