

Controlled Vocabulary (CV)

Some data fields may require the use of controlled vocabularies or enumerations. This section contains a list of fields that use a controlled vocabulary, and specifies what may be entered for each field.

When “other” is noted, the option to manually enter a new (not-listed) definition is available.

NA= not applicable.

Vocabulary	Definition
Measurement technique	open-ended coaxial probe, waveguide, cavity, transmission line, other
Measurement Frequency (units)	Hz, kHz, MHz, GHz, THz
Temperature (units)	°C (Celsius), °F (Fahrenheit), K (Kelvin)
Temperature accuracy (units)	°C (Celsius), °F (Fahrenheit), K (kelvin), +/- %, NA
Frequency Scale Format	logarithmic, linear, custom
Timing (units)	h, min, s, less than (min), less than (h), more than (min), more than (h)
Measurement Power (units)	dBm, mW, NA
Tissue state	ex-vivo, in-vivo, in-vitro
Validation material	butanol, ethanediol, deionised water, methanol, ethanol, 0.1 M NaCl, 0.9% NaCl, other
Calibration liquid	deionised water, other
Type of sample	liquid, phantom, biological tissue, other
Tissue source species	human, porcine, ovine, rat, mouse, bovine, dog, cat, other
Tissue source organ/type	lung, liver, muscle, kidney, heart, breast, skin, adrenal gland (cortex), adrenal gland (medulla), brain, white matter, grey matter, cortex, cerebellum, cornea, uterus, intestine, tumour, ovary, pancreas, stomach, testes, other
Tissue sample dimensions (units)	mm x mm x mm, cm x cm x cm
Tissue diseased or normal	Diseased, normal, unknown
Liquid volume (units)	uL (microlitre), mL (millilitre), cL (centilitre), dL (decilitre), L (litre)
Dielectric model of individual measurement	Debye, Cole-Cole, other
Data to model fit optimisation method	least squares method, particle swarm optimisation, weighted least squares method, hybrid particle swarm-least squares algorithm, one-stage genetic algorithm, two-stage genetic algorithm, other

Measurement error type (validation)	Accuracy, repeatability, TCU (total combined uncertainty), other
Calculation method for error between data and model	average fractional difference over frequency range, average percent difference over frequency range, chi-squared goodness of fit, other