Omega

Four investigation depths. Two measurement frequencies.

SOURCE PRODUCT ILLUSTRATION

Omega measures phase-shift and attenuation resistivity at 400 kHz and 2 MHz. A retrievable probe lands in a slotted collar, using symmetrically positioned transmitters to compensate for borehole effects.

400 kHz / 2 MHz
frequencies

4
investigation depths

150°C
temperature rating

Operating parameters

Parameter	Published value
Collar outside diameters	3.75, 4.75, 6.75 and 8 in
Tool length	138.31 in
Collar length	130.5 in
Maximum dogleg	15° / 100 ft
Operating temperature	150°C / 302°F
Operating pressure	20,000 psi
Maximum sand content	0.50%
Recorder capacity	40,000 records
Input voltage	18.5-30 VDC

Power-source notation in the original brochure requires confirmation.

Depth of investigation

Measurement	At 1 ohm·m	At 10 ohm·m
2 MHz phase	18 in	28 in
400 kHz phase	24 in	37 in
2 MHz attenuation	30 in	48 in
400 kHz attenuation	41 in	76 in

Radius where the integrated geometrical factor reaches 0.5 in the specified formation. Inches retained because some source metric conversions conflict.

Vertical resolution

Measurement	At 1 ohm·m	At 10 ohm·m
2 MHz phase	12 in	21 in
400 kHz phase	16 in	28 in
2 MHz attenuation	22 in	40 in
400 kHz attenuation	33 in	58 in

Width at 50% of the vertical response function.

Ideal operating range

Measurement	Resistivity
2 MHz phase	0.4-2,000 ohm·m
400 kHz phase	0.1-1,000 ohm·m
2 MHz attenuation	0.4-200 ohm·m
400 kHz attenuation	0.1-50 ohm·m

Application & configuration

Applications: Oil/water contact evaluation; Bed-boundary mapping; Logging while tripping; Measurement after drilling.

Investigation depth depends on formation resistivity. Omega is propagation resistivity, not an azimuthal-resistivity system. Confirm collar and interface compatibility.

Source: Brochure_Omega MWDS(3).pdf. Values are transcribed from supplied documentation. Confirm the current assembly, operating envelope and telemetry compatibility with MWD Solutions before use.