

F65 Material

F65 is a Manganese-Zinc ferrite similar in general characteristics to the main family of MMG high permeability Manganese-Zinc ferrites. This material was developed for LAN applications, specifically 100 BaseTx. The permeability is typically 4400, and incremental permeability is controlled over temperature ranging from 0° to 70° C. F65 material is available in geometries ranging in size from approximately .1 inch to .23 inches.

Parameter	Symbol	Unit	Standard Test Conditions	Value
Initial Permeability (Nominal)	μ_i	—	10 kHz ~ 0.1mT	4400 ± 40%
Saturation Flux Density (typical)	B_{sat}	mT	H=400A/m	350
Residual Flux Density (typical)	B_r	mT	H=80A/m=1.0Oe	100
Coercive force (typical)	H_C	A/m	H=80A/m=1.0Oe	14
Relative Loss Factor (maximum)	$\text{Tan } \delta/\mu_i$	10^{-6}	100 kHz ~ 0.1mT	20
Curie Temperature (minimum)	T_c	°C	B<0.1mT 1kHz	>150
Volume Resistivity (typical)	ρ	$\Omega\text{-cm}$	1V/cm 25°C	20

