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## LIST OF ABBREVIATIONS

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AUT	Antenna Under Test
BSG	Borosilicate glass
BW	Bandwidth
BST	$\text{Ba}_{0.5}\text{Sr}_{0.5}\text{TiO}_3$
BB	$\text{B}_2\text{O}_3\text{-Bi}_2\text{O}_3$
CBS	$\text{CaO-B}_2\text{O}_3\text{-SiO}_2$
CDR	Cylindrical Dielectric Resonator
CDRA	Cylindrical Dielectric Resonator Antenna
CTE	Coefficient of Thermal Expansion
CZN	$\text{Cu}_2\text{ZnNb}_2\text{O}_8$
DR	Dielectric Resonator
DRA	Dielectric Resonator Antenna
DS-CDRA	Dual Segment Cylindrical Dielectric Resonator Antenna
DS-RDRA	Dual Segment Rectangular Dielectric Resonator Antenna
DTA	Differential Thermal Analysis
FDTD	Finite Difference Time Domain
FRDRA	Filletted Rectangular Dielectric Resonator Antenna
FEM	Finite Element Method
FR-4	Flame Retardant (fiberglass reinforced epoxy laminates)
GPS	Global Positioning System
HEM	Hybrid Electric and Magnetic
HFSS	High Frequency Structure Simulator
IoT	Internet of Things
IEEE	Institute of Electrical and Electronics Engineers
JCPDS	Joint Committee on Powder Diffraction Standards
MIMO	Multi-Input Multi Output
MLMP	Multi-Layer Multi-Permittivity
MPA	Microstrip Patch Antenna
PCB	Printed Circuit Board
PBBS	$\text{PbO-B}_2\text{O}_3\text{-BaO-SiO}_2$
PPP	Probe with Plus Patch

PSP	Probe with Swastik Patch
PXP	Probe with XOR Patch
PVA	Polyvinyl Alcohol
$Q \times f$	Quality Factor multiplied by frequency
RDRA	Rectangular Dielectric Resonator Antenna
SCS	$\text{SrCuSi}_4\text{O}_{10}$
SEM	Scanning Electron Microscopy
SMA	Sub-miniature version A
TA	Thermal Analyser
TE	Transverse Electric
TEM	Transverse Electromagnetic
TM	Transverse Magnetic
WiMAX	Worldwide Interoperability for Microwave Access
WLAN	Wireless Local Area Network
XRD	X-Ray Diffraction
3D	Three dimensional