

<b>S.N.</b>	<b>Essential Requirement/ Product Name</b>	<b>Product Variant Name</b>	<b>MTCTE Phase</b>
1.	2- Wire Telephone Equipment	2-Line Feature Phone	Phase-1
2.	2- Wire Telephone Equipment	CLIP (Calling Line Identification Presentation) Phone	Phase-1
3.	2- Wire Telephone Equipment	Coin Box Telephone	Phase-1
4.	2- Wire Telephone Equipment	Coin Box Telephone - Table Top Interface	Phase-1
5.	2- Wire Telephone Equipment	Electronic Telephone Instrument	Phase-1
6.	2- Wire Telephone Equipment	Executive Telephone Systems	Phase-1
7.	2- Wire Telephone Equipment	Key Telephone Systems	Phase-1
8.	2- Wire Telephone Equipment	Key Telephone Systems with proprietary interface	Phase-1
9.	2- Wire Telephone Equipment	NSD (National Subscriber Dialing) or ISD (International Subscriber Dialing) Payphone	Phase-1
10.	2- Wire Telephone Equipment	Terminals for connecting to PSTN (Public Switched Telephone Network)	Phase-1
11.	G3 Fax Machine	FAX machine with handset	Phase-1
12.	G3 Fax Machine	FAX machine without handset	Phase-1
13.	Modem	V.90 or V.92 or V.21 to V.34 Modem	Phase-1
14.	Cordless Telephone	Cordless Telephone	Phase-1
15.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	ISDN Gateway	Phase-1
16.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	ISDN NT-1 Network Termination	Phase-1
17.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	ISDN Terminal	Phase-1
18.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	ISDN Terminal Adapter	Phase-1
19.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	Multipoint Conferencing Server	Phase-1
20.	ISDN (Integrated Services Digital Network) Customer Premises Equipment	PC card based ISDN Terminal	Phase-1
21.	Private Automatic Branch Exchange	Private Automatic Branch Exchange	Phase-1
22.	PON (Passive Optical Network) Family of Broadband Equipment	PON OLT (Optical Line Terminal)	Phase-2
23.	PON (Passive Optical Network) Family of Broadband Equipment	PON ONT (Optical Network Terminal)	Phase-2
24.	PON (Passive Optical Network) Family of Broadband Equipment	PON ONU (Optical Network Unit)	Phase-2
25.	Feedback Device	Feedback Device	Phase-2
26.	Transmission Terminal Equipment-1	Multiplexing Equipment	Phase-2

27.	Transmission Terminal Equipment-1	SDH (Synchronous Digital Hierarchy) Equipment	Phase-2
28.	Equipments Operating in 2.4 GHz and 5 GHz Band	PTP PMP Wireless Access Equipment 2.4 or 5 GHz	Phase-3
29.	Equipments Operating in 2.4 GHz and 5 GHz Band	Wifi Access Points and CPE (Customer Premises Equipment)	Phase-3
30.	Equipments Operating in 2.4 GHz and 5 GHz Band	WLAN Controller Equipment	Phase-3
31.	End Point Device for Environmental Monitoring	End Point Device for Environmental Monitoring	Phase-3
32.	Repeater for Cellular Network	GSM and WCDMA Repeater	Phase-3
33.	Repeater for Cellular Network	GSM Repeater	Phase-3
34.	Repeater for Cellular Network	GSM WCDMA and LTE Repeater	Phase-3
35.	Repeater for Cellular Network	LTE (Long Term Evolution) Repeater	Phase-3
36.	Repeater for Cellular Network	WCDMA (Wideband Code Division Multiple Access) and LTE Repeater	Phase-3
37.	Repeater for Cellular Network	WCDMA (Wideband Code Division Multiple Access) Repeater	Phase-3
38.	Base Station for Cellular Network	BTS (Base Transceiver Station ) for GSM (Global System for Mobile Communication)	Phase-3
39.	Base Station for Cellular Network	BTS with AAS (Advanced Antenna Systems)	Phase-3
40.	Base Station for Cellular Network	BTS with MSR (Multi-Standard Radio) up to 4G	Phase-3
41.	Base Station for Cellular Network	eNodeB for LTE (Long Term Evolution)	Phase-3
42.	Base Station for Cellular Network	NodeB for WCDMA	Phase-3
43.	Compact Cellular Network	BTS CCN	Phase-3
44.	Compact Cellular Network	eNodeB CCN	Phase-3
45.	Compact Cellular Network	NodeB CCN	Phase-3
46.	IoT (Internet of Things) Gateway	IoT Gateway	Phase-3
47.	Tracking Device	Asset Tracking Device	Phase-3
48.	Tracking Device	Human Tracking Device	Phase-3
49.	Tracking Device	Pet Tracking Device	Phase-3
50.	Tracking Device	Standalone tracking device for Vehicle	Phase-3
51.	Smart Electricity Meter	Smart Electricity Meter	Phase-3
52.	Mobile Radio Trunking System	MRTS Base Station - Baseband plus Radio	Phase-4
53.	Mobile Radio Trunking System	MRTS Base Station - Radio Only	Phase-4
54.	Mobile Radio Trunking System	MRTS Baseband Equipment without Radio	Phase-4
55.	Mobile Radio Trunking System	MRTS Fixed Station	Phase-4
56.	Mobile Radio Trunking System	MRTS Handheld Portable Station	Phase-4
57.	Mobile Radio Trunking System	MRTS Mobile Station	Phase-4

58.	Conferencing Equipment	Audio Conference Facility Device	Phase-4
59.	Conferencing Equipment	Multi Line Telephone System	Phase-4
60.	HF (High Frequency) Radio	HF Base Station - Baseband plus Radio	Phase-4
61.	HF (High Frequency) Radio	HF Base Station - Radio Only	Phase-4
62.	HF (High Frequency) Radio	HF Baseband Equipment without Radio	Phase-4
63.	HF (High Frequency) Radio	HF Fixed Station	Phase-4
64.	HF (High Frequency) Radio	HF Handheld Portable Stations	Phase-4
65.	HF (High Frequency) Radio	HF Mobile Stations	Phase-4
66.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Base Station - Baseband plus Radio	Phase-4
67.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Base Station - Radio Only	Phase-4
68.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Baseband Equipment without Radio	Phase-4
69.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Fixed Station	Phase-4
70.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Handheld Portable Stations	Phase-4
71.	VHF( Very High Frequency) UHF (Ultra High Frequency) Radio System Equipment	VHF UHF Mobile Stations	Phase-4
72.	PTP (Point to Point) PMP (Point to Multi Point) Microwave Fixed Radio Systems	PTP or PMP Full Outdoor Microwave Systems	Phase-4
73.	PTP (Point to Point) PMP (Point to Multi Point) Microwave Fixed Radio Systems	PTP or PMP Split MW Indoor Unit	Phase-4
74.	PTP (Point to Point) PMP (Point to Multi Point) Microwave Fixed Radio Systems	PTP or PMP Split MW Outdoor Unit	Phase-4
75.	PTP (Point to Point) PMP (Point to Multi Point) Microwave Fixed Radio Systems	PTP/PMP Split M W System	Phase-4
76.	Media Gateway	Line Media Gateway	Phase-4
77.	Media Gateway	Media Gateway	Phase-4
78.	Media Gateway	Media Gateway for CPE	Phase-4
79.	Signalling Gateway	Signalling Gateway	Phase-4
80.	Session Border Controller	Session Border Controller	Phase-4
81.	Softswitch	Softswitch	Phase-4
82.	DSL(Digital Subscriber Line) Equipments	DSLAM	Phase-4

83.	DSL(Digital Subscriber Line) Equipments	DSL Modem	Phase-4
84.	Satellite Communication Equipment	Satellite Amplifier	Phase-4
85.	Satellite Communication Equipment	Satellite Baseband Mod or Demod or Controller	Phase-4
86.	Satellite Communication Equipment	Satellite Baseband Modem	Phase-4
87.	Satellite Communication Equipment	Satellite Baseband Modem Controller	Phase-4
88.	Satellite Communication Equipment	Satellite BUC (Block Up Converter)	Phase-4
89.	Satellite Communication Equipment	Satellite IF Transreceiver	Phase-4
90.	Satellite Communication Equipment	Satellite LNA (Low Noise Amplifier)	Phase-4
91.	Satellite Communication Equipment	Satellite LNB(Low Noise Block downconverter)	Phase-4
92.	Satellite Communication Equipment	Satellite Optimisation Equipment	Phase-4
93.	Satellite Communication Equipment	Satellite Radio Frequency Transceiver	Phase-4
94.	Satellite Communication Equipment	VSAT (Very Small Aperture Terminal) Terminals	Phase-4
95.	LAN (Local Area Network) Switch	L2 LAN Switch	Phase-4
96.	LAN (Local Area Network) Switch	L3 LAN Switch	Phase-4
97.	LAN (Local Area Network) Switch	MPLS (Multiprotocol Label Switching) TP (Transport Profile) CEN (Carrier Ethernet Network )Switch	Phase-4
98.	LAN (Local Area Network) Switch	L2 Unmanaged Switch	Phase-4
99.	Router	BNG (Broadband Network Gateway) or BRAS (Broadband Remote Access Server) Router	Phase-4
100.	Router	Cloud Control Capable Router	Phase-4
101.	Router	IPV4 (Internet Protocol v4) Router	Phase-4
102.	Router	IPV6 (Internet Protocol v6) Router	Phase-4
103.	Router	MPLS (Multiprotocol Label Switching) Router	Phase-4
104.	Transmission Terminal Equipment-2	DWDM (Dense wavelength-division multiplexing) Equipment	Phase-4
105.	Transmission Terminal Equipment-2	Digital Cross Connect	Phase-4
106.	IP (Internet Protocol) Security Equipment	Firewall Equipment	Phase-4
107.	IP (Internet Protocol) Security Equipment	Intrusion Detection System Equipment	Phase-4
108.	IP (Internet Protocol) Security Equipment	Intrusion Prevention System Equipment	Phase-4
109.	IP (Internet Protocol) Security Equipment	Unified Threat Management Equipment	Phase-4
110.	Precision Timing Protocol Grand Master Equipment	Precision Timing Protocol Grand Master Equipment	Phase-4
111.	Mobile Management Entity	MME with connectivity to MSC SGSN	Phase-4
112.	Mobile Management Entity	MME for LTE	Phase-4
113.	Cell Broadcast Centre	CBC for GSM	Phase-4
114.	Cell Broadcast Centre	CBC for LTE or LTE-A	Phase-4
115.	Cell Broadcast Centre	CBC For UMTS	Phase-4

116.	IP Multimedia Conferencing Equipment	IP Multimedia Conferencing Equipment	Phase-4
117.	BSC (Base Station Control) RNC (Radio Network Controller)	BSC for GSM	Phase-4
118.	BSC (Base Station Control) RNC (Radio Network Controller)	RNC for WCDMA	Phase-4
119.	SMLC (Serving Mobile Location Center) or eSMLC (Evolved Serving Mobile Location Center )	eSMLC for LTE	Phase-4
120.	SMLC (Serving Mobile Location Center) or eSMLC (Evolved Serving Mobile Location Center )	SMLC for GSM	Phase-4
121.	SMLC (Serving Mobile Location Center) or eSMLC (Evolved Serving Mobile Location Center )	SMLC for WCDMA	Phase-4
122.	SGSN (Serving GPRS Support Node) or GGSN (Gateway GPRS Support Node)	GGSN	Phase-4
123.	SGSN (Serving GPRS Support Node) or GGSN (Gateway GPRS Support Node)	SGSN For GSM	Phase-4
124.	SGSN (Serving GPRS Support Node) or GGSN (Gateway GPRS Support Node)	SGSN For LTE	Phase-4
125.	SGSN (Serving GPRS Support Node) or GGSN (Gateway GPRS Support Node)	SGSN For WCDMA	Phase-4
126.	HLR (Home Location Register) AUC (Authentication Cente) HSS (Home Subscriber Server)	HLR or AUC	Phase-4
127.	HLR (Home Location Register) AUC (Authentication Cente) HSS (Home Subscriber Server)	HSS	Phase-4
128.	MSC or MSC-S or GMSC or GMSC-S including VLR	MSC-S or GMSC-S	Phase-4
129.	MSC or MSC-S or GMSC or GMSC-S including VLR	MSC or GMSC including VLR for GSM	Phase-4
130.	MSC or MSC-S or GMSC or GMSC-S including VLR	MSC or GMSC including VLR for WCDMA	Phase-4
131.	Infiniband Switch	Infiniband Switch	Phase-4
132.	OTA (Over-The-Air) and DM (Device Manager) or FOTA (Firmware Over-The-Air)	DM or FOTA	Phase-4
133.	OTA (Over-The-Air) and DM (Device Manager) or FOTA (Firmware Over-The-Air)	OTA	Phase-4
134.	SCP (Service Control Point)	SCP	Phase-4
135.	OMC(Operations and Maintenance Center) or EMS (Element Management Systems) or NMS (Network Management Systems) or OSS (Operations Support System)	NMS	Phase-4
136.	OMC(Operations and Maintenance Center) or EMS (Element Management Systems) or NMS (Network Management Systems) or OSS (Operations Support System)	OMC or EMS	Phase-4
137.	S-GW (Serving Gateway) or P-GW (Packet Data Network Gateway)	P-Gateway	Phase-4
138.	S-GW (Serving Gateway) or P-GW (Packet Data Network Gateway)	S-Gateway	Phase-4
139.	SMSC (Short Message Service Center)	SMSC	Phase-4
140.	GMLC (Gateway Mobile Location Centre)	GMLC for GSM or WCDMA	Phase-4
141.	GMLC (Gateway Mobile Location Centre)	GMLC for LTE or LTE-A	Phase-4

142.	EIR (Equipment Identity Register)	EIR for GSM or WCDMA	Phase-4
143.	EIR (Equipment Identity Register)	EIR for LTE	Phase-4
144.	Optical Fibre Cable	Hybrid Cable - Optical and Metallic	Phase-4
145.	Optical Fibre Cable	Optical Fibre Cable - ADSS on Aerial alignment	Phase-4
146.	Optical Fibre Cable	Optical Fibre Cable - ADSS along Power line	Phase-4
147.	Optical Fibre Cable	Optical Fibre Cable - Direct Buried	Phase-4
148.	Optical Fibre Cable	Optical Fibre Cable - DSA	Phase-4
149.	Optical Fibre Cable	Optical Fibre Cable - Duct	Phase-4
150.	Optical Fibre Cable	Optical Fibre Cable - In home	Phase-4
151.	Optical Fibre Cable	Optical Fibre Cable - Indoor	Phase-4
152.	Optical Fibre Cable	Optical Fibre Cable – Indoor/ Outdoor	Phase-4
153.	Optical Fibre Cable	Optical Fibre Cable - Micro-Duct	Phase-4
154.	Optical Fibre Cable	Optical Fibre Cable – Access Outdoor	Phase-4
155.	Optical Fibre Cable	Optical Ground Wire -OPGW	Phase-4
156.	SIM (Subscriber Identity Module)	CSIM (CDMA SIM)	Phase-4
157.	SIM (Subscriber Identity Module)	eSIM (Embedded SIM)	Phase-4
158.	SIM (Subscriber Identity Module)	eUICC (Embedded Universal Integrated Circuit Card)	Phase-4
159.	SIM (Subscriber Identity Module)	RUIM (Removable User Identity Module)	Phase-4
160.	SIM (Subscriber Identity Module)	SIM	Phase-4
161.	SIM (Subscriber Identity Module)	UICC (Universal Integrated Circuit Card) based ISIM	Phase-4
162.	SIM (Subscriber Identity Module)	USIM (Universal Subscriber Identity Module)	Phase-4
163.	Radio Broadcast Receiver RBR	All Motor vehicle RBRs requiring external power	Phase-4
164.	Radio Broadcast Receiver RBR	All RBRs driven with inbuilt power source	Phase-4
165.	Radio Broadcast Receiver RBR	Other devices having RBR interface	Phase-4
166.	Optical Fibre - Single Mode	Optical Fibre - G.652.D	Phase-4
167.	Optical Fibre - Single Mode	Optical Fibre - G.655	Phase-4
168.	Optical Fibre - Single Mode	Optical Fibre - G.656	Phase-4
169.	Optical Fibre - Single Mode	Optical Fibre - G.657. A1	Phase-4
170.	Optical Fibre - Single Mode	Optical Fibre - G.657. A2	Phase-4
171.	Optical Fibre - Single Mode	Optical Fibre - G.657. B3	Phase-4
172.	Optical Fibre - Single Mode	Optical Fibre -G.654.D	Phase-4
173.	Optical Fibre - Single Mode	Optical Fibre -G.654.E	Phase-4
174.	Base station for cellular network for 5G	BTS with Multi Standard Radio	Phase-5
175.	Base station for cellular network for 5G	Active Antenna System-OTA	Phase-5
176.	Base station for cellular network for 5G	Base Station 5G NR Type 1C	Phase-5

177.	Base station for cellular network for 5G	Base Station 5G NR Type 1H	Phase-5
178.	Base station for cellular network for 5G	Base Station 5G NR Type 1O	Phase-5
179.	Base station for cellular network for 5G	Base Station 5G NR Type 2O	Phase-5
180.	Base station for cellular network for 5G	Hybrid Active Antenna System	Phase-5
181.	5G Core	AMF (Access and Mobility Management Function )	Phase-5
182.	5G Core	AuSF (The Authentication Server Function)	Phase-5
183.	5G Core	BSF (Binding Support Function)	Phase-5
184.	5G Core	CHF (Charging Function)	Phase-5
185.	5G Core	NEF (Network Exposure Function)	Phase-5
186.	5G Core	NSSF (Network Slice Selection Function)	Phase-5
187.	5G Core	PCF (Policy Control Function)	Phase-5
188.	5G Core	SMF (Session Management Function)	Phase-5
189.	5G Core	SMSF (Short Message Service Function)	Phase-5
190.	5G Core	UDM (Unified Data Management)	Phase-5
191.	5G Core	UDR (Unified Data Repository)	Phase-5
192.	5G Core	UPF (User Plane Function)	Phase-5
193.	Hypervisor	Hypervisor	Phase-5
194.	E-band Fixed Radio Relay System	E-Band MW Full Outdoor System	Phase-5
195.	E-band Fixed Radio Relay System	E-Band MW Outdoor System plus Indoor System	Phase-5
196.	Converged Multi service Application Access Equipment (C-MSAAE)	C-MSAAE	Phase-5
197.	IP (Internet Protocol)Terminal	SIP Terminal	Phase-5