

INDEX FOR ANNEXURE A

18

42



No.	Equipment/Asset	Sub-category	Specification		
			Description	Reference Number	Version
1	Track Circuits	Not Applicable	Required Operational Capability of Track Circuits	CSE-1184-003 Category X47	3
2	Fail-Safe Data Transmission (FSDT)	Not Applicable	Required Operational Capability of Fail Safe Data Transmission Systems	BBB0513	2
3	Axle Counters	Not Applicable	Required Operational Capability of Axle Counter Systems	BBB1875	2
4	Electro - Mechanical Point Machines	Not Applicable	Required Operational Capability of Transnet Freight Rail Points Machines	BBB4628	5
		Points Rodding	Procurement Specification : Transnet Freight Rail Points Rodding or componenets thereof	BBH3698	1
		Lock and Detector Boxes	Required Operational Capability for facing point lock and detector for power operated points	CSE - 19A	2
		Points Clamps	User Requirement Specification for the Universal Switch Blade Clamp Lock Device	BBH3690	1
5	Electro - Hydraulic Point Machines	Not Applicable	Required Operational Capability of Transnet Freight Rail Points Machines	BBB4628	5
6	Self-Normalising Points	Mechanical Self-Normalising Points	Required Operational Capability of Electrical Self-Normalising Points System	BBH5422	1
		Electrical Self-Normalising Points	Required Operational Capability of Mechanical Self-Normalising Points System	BBH5539	1

7	Signalling Remote Control Systems	CS90 field & office equipment	SPECIFICATION: CS90: MCU 2.53 MASTER CONTROL UNIT	BBH3134	1
			MATERIAL LIST: CS90: MCU 2.53 MASTER CONTROL UNIT	BBB2802	4
			LOGIC DIAGRAM: CS90: MCU 2.53 MASTER CONTROL UNIT	BBB2803	4
			SPECIFICATION: RS232 to Fibre Interface with Line Control (RFILCN) Non Isolated 9V to 15V DC	BBH3135	1
			MATERIAL LIST: RS232 to Fibre Interface with Line Control (RFILCN) Non Isolated 9V to 15V DC	BBB4956	4
			SPECIFICATION: RS232 Multi Drop to Fibre Interface with Line Control (MFILCI) Isolated 36V to 72V DC	BBH3136	1
			MATERIAL LIST: RS232 Multi Drop to Fibre Interface with Line Control (MFILCI) Isolated 36V to 72V DC	BBB4964	4
			SPECIFICATION: CS90: BKMB6 BLANK MOTHERBOARD 1INCH PITCH	BBH3137	1
			MATERIAL LIST: CS90: BKMB6 BLANK MOTHERBOARD 1INCH PITCH	BBB8327	3
			SPECIFICATION: CS90: MIC1.5 – MICRO INPUT CARD	BBH3138	1
			MATERIAL LIST: CS90: MIC1.5 – MICRO INPUT CARD	BBB8846	1
			SPECIFICATION: CS90: MIC2.5 – MICRO INPUT CARD	BBH3139	1
			MATERIAL LIST: CS90: MIC2.5 – MICRO INPUT CARD	BBB8851	1
			SPECIFICATION: CS90: MOC3.5 – MICRO OPTO - OUTPUT CARD	BBH3140	1
			MATERIAL LIST: CS90: MOC3.5 – MICRO OPTO - OUTPUT CARD	BBB8857	3
			SPECIFICATION CS90: TSMB6 Motherboard for MCU2.53	BBH3141	1
			MATERIAL LIST: CS90: TSMB6 Motherboard for MCU2.53	BBB8869	3
			SPECIFICATION: CS90: USB TO FIBRE INTERFACE CARD	BBH3142	2
			MATERIAL LIST: CS90: USB TO FIBRE INTERFACE CARD	BBB9079	3
			SPECIFICATION: CS90: POWER SUPPLY UNIT - PSU4 INPUT 40-90VDC OUTPUT 12VDC 5A	BBH3143	1
			MATERIAL LIST: CS90: POWER SUPPLY UNIT - PSU4 INPUT 40-90VDC OUTPUT 12VDC 5A	BBC0366	2
			SPECIFICATION: CS90: MCU Extender Board	BBH3144	1
			MATERIAL LIST: CS90: MCU Extender Board	BBC4100	2
			SPECIFICATION: CS90: HIEF CARD	BBH3145	1
			COMPONENT LAYOUT: CS90: HIEF CARD	BBD6291	1
			SPECIFICATION: RS232 COMBINER WITH LED INDICATIONS	BBH3146	1
			MATERIAL LIST: RS232 COMBINER WITH LED INDICATIONS	BBD7051	1xa

8	Telecontrol Systems	Outstation Equipment	SCHEMATIC: TELECONTORL O/S: CENTRAL PROCESSING UNIT LOGIC CARD -CPU	BBH3105	1
			SCHEMATIC: TELECONTORL O/S: MODEM CARD - MC	BBH3106	1
			SCHEMATIC: TELECONTORL O/S: DIGITAL INPUT LOGIC CARD- DI	BBH3107	1
			ASSEMBLY DRAWING: TELECONTORL O/S: LOGIC AND MODEM CONTROL UNIT - LMCU	BBH3108	1
			ASSEMBLY DRAWING: TELECONTORL O/S: LINE TRANSFORMER UNIT	BBH3109	1
			SCHEMATIC: TELECONTORL O/S: MAXDEM UNIV. RAIL CARD	BBH3110	1
			SCHEMATIC: TELECONTORL O/S: LINE TRANSFORMER CARD	BBH3111	1
			SCHEMATIC: TELECONTORL O/S: MOTHER BOARD	BBH3112	1
			WIRING DIAGRAM: TELECONTORL UNIVERSAL OUTSTATION CPU – LIF RIBBON CABLE	BBH3113	1
			WIRING DIAGRAM: TELECONTORL UNIVERSAL OUTSTATION LCD – CPU RIBBON CABLE	BBH3114	1
			WIRING DIAGRAM: TELECONTORL UNIVERSAL OUTSTATION FACE – CPU RIBBON CABLE	BBH3115	1
			DRAWING: TELECONTORL OUTSTATION ANALOGUE INPUT LOGIC CARD: FACE PLATE	BBH3116	1
			DRAWING: TELECONTORL OUTSTATION DIGITAL INPUT LOGIC CARD: FACE PLATE	BBH3117	1
			SCHEMATIC: TELECONTORL O/S DIGITAL RAIL CARD: LATCH/DUMMY	BBH3118	1
			SCHEMATIC: TELECONTORL O/S: ANALOGUE INPUT RAIL CARD	BBH3119	1
			SCHEMATIC: TELECONTORL O/S: DIGITAL OUTPUT LOGIC CARD - DO	BBH3120	1
			DRAWING: TELECONTROL O/S: POWER SUPPLY HEAT SINK	BBH3127	1
			SPECIFICATION: TELECONTROL: O/S POWER SUPPLY UNIT: FACE PLATE	BBH3128	1
9	Power Supplies	Not Applicable	Low-voltage power supply devices, DC 12V Output, for use in Railway Signalling Applications	BBF3705	1
			Low-voltage power supply devices, DC 24V Output, for use in Railway Signalling Applications	BBF3857	1
			Low-voltage power supply devices, DC 48V Output, for use in Railway Signalling Applications	BBF3858	1
			Low-voltage power supply devices, AC to DC converter with 60V Output, for use in Railway Signalling Applications	BBF3861	1
			Low-voltage power supply devices, AC to DC converter with 110V Output, for use in Railway Signalling Applications	BBF3862	1
			7.2V/24V DUAL DC POWER SUPPLY UNIT FOR SELF NORMALISING ELECTRICAL POINTS SYSTEM	BBH4476	1
10	Uninterruptible Power Supplies (UPS)	Stand-alone UPS	Three Phase Static Uninterruptable Power Supply 10 to 125kVA	BBC5666	1
		Modular UPS	Single Phase Static Uninterruptable Power Supply 3 to 10kVA	BBC5665	1
11	Power distribution Cubicle	Not Applicable	User Requirement Specification of Signalling Power System and Backup Supply	BBH0101	4
12	Signalling Standby Batteries	Not Applicable	Power Distribution Cubicles for Signalling Installations	BBF7820	1
		Flow Batteries	Batteries for use in Signal Standby Power Supplies	BBG1027	5
13	Transformers	*Step Up Transformers	Isolating Transformers for Signalling Power Applications	CSE_1163_009	2
		*Step Down Transformers			
		*Isolation Transformers	Signal Lamp Transformer	CSE_32H/7	2
		Signal Lamp Transformer			
14	Battery Monitoring System	Not Applicable	Battery Monitoring System	BBH0102	3
15	Yard Automation	Not Applicable	Technical and Functional Specification for Yard Points Control System	BBC6525	5
16	Electrical Points Indicators	Electrical Points Indicators for Running Lines	Implementation Policy for Points Indicators on Running Lines	BBB1366	4
		Electrical Points Indicators for Shunting Yards	Guideline for left or right hand electrical points indicator LED cluster - Shunting Yards	BBC6535	3
			Electrical Points Indicators for use in Shunting Yards	BBC8156	1
17	Signal Assembly	Signal Assembly (Poles, targets, etc.) excludes lamps and LED Clusters	Requirement specification for the performance of long range colour light signals	BBD5378	1
18	Long-life Signal Lamps	Not Applicable	Required operational capability of Signal Lamps	BBH3123	1
19	LED Cluster Signals	Not Applicable	Required operational capability of LED Signal Lamps	BBH3104	2
20	Signalling Cables	Copper conductors	Guideline for the use of cables in Signalling Installations	BBH2124	3
			PVC Insulated metal protected outdoor cables	BBH2125	1
			PVC insulated multi-core indoor cable	BBH2126	1
			PVC Insulated flame retardant indoor cables	BBH2127	1
			PVC Insulated single core indoor cables	BBH2128	1
			Stranded, bare copper or PVC insulated, outdoor or indoor cable for earth connections	BBH2129	1
			PVC Insulated Unarmoured CAB Tyre Cable	BBH2130	1
			Stranded, Galvanised High Tensile Steel, PVC Insulated, Outdoor cable for track jumpering	BBH2131	1
			PE INSULATED, PE BEDDING SHEATH, SWA, PVC SHEATH UNDERGROUND TELECOM CABLE FOR AXLE COUNTERS	BBH4608	1
		Composite Conductors	Alternative Composite Conductors for use as underground cables in signalling applications	BBH0780	3

21	Lightning Protection	Class I + Class II Lightning Protection Modules	Installation of Earthing and Lightning Protection of signal relay rooms and signal equipment enclosures	BBC1040	2
		Class III Lightning Protection Modules (TFR: In-house designed )	CHTJ: MASTER RECORD INDEX	BBH3147	1
			CHTJ: DESCRIPTION	BBH3148	1
			CHTJ: CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBH3149	1
			KRTJ(11VA): MASTER RECORD INDEX	BBH3152	1
			KRTJ(11VA): DESCRIPTION	BBH3153	1
			KRTJ(11VA): CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBH3154	1
			KRTJ(48VA): MASTER RECORD INDEX	BBH3158	1
			KRTJ(48VA): DESCRIPTION	BBH3159	1
			KRTJ(48VA): CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBH3160	1
			Universal/Multipurpose protection board (UNIVERSAL TRIPLE PATH MOV LIGHTNING ARRESTOR): MASTER RECORD INDEX	BBF1354	1
			Universal/Multipurpose protection board (UNIVERSAL TRIPLE PATH MOV LIGHTNING ARRESTOR): DESCRIPTION	BBG2160	1
			Universal/Multipurpose protection board (UNIVERSAL TRIPLE PATH MOV LIGHTNING ARRESTOR): CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBG2157	1
			ZP30V lightning Protection: MASTER RECORD INDEX	BBH3163	1
			ZP30V lightning Protection: DESCRIPTION	BBH3164	1
			ZP30V lightning Protection: CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBH3165	1
			ZP43V Lightning Protection: MASTER RECORD INDEX	BBB8566	1
			ZP43V Lightning Protection: DESCRIPTION	BBB8567	1
			ZP43V Lightning Protection: CIRCUIT DIAGRAM + LIST OF COMPONENTS	BBB8568	1
			Lightning Protection for Tee Pee: MASTER RECORD INDEX	BBG4928	1
			Lightning Protection for Tee Pee: DESCRIPTION	BBG4932	1
			Lightning Protection for Tee Pee: CIRCUIT DIAGRAM	BBG4929	1
			Lightning Protection for Tee Pee: LIST OF COMPONENTS	BBG4930	1
22	Crank Handle Boxes	Not Applicable	Purchase Specification for Crank Handle Box	BBH3083	1
23	Enclosures	Anti-Vandal Lid for use with: * Points Machines	Anti-vandal lids for use with Points Machines	BBH3126	1
			General Assembly Anti-Vandal Cover Switchmatic Type B1 Points Machine	BBF2272	2
		Secure Signalling Structures *High Risk Safe Doors Steel Battery Stand	General Assembly Anti-Vandal Cover Style 63 Points Machine	BBG1026	2
			Signalling Equipment Shelter	BBH1869	2
			Steel Anti-vandal Equipment Enclosure	BBH3102	1
			USE OF SAFETY DOORS FOR SIGNAL RELAY AND APPARATUS ROOMS	BBH4866	1
24	Hand Operated Hydraulic Points Drive	Hand Operated Hydraulic Points Drive for: *hand tumbler replacement	Anti-Vandal Steel Battery Stands	BBG1023	1
25	Relays	Q-Type Relays	Purchase Specification for Hand Operated Hydraulic Points Drive	BBH2083	1
		Primary and Secondary Signal Relays	General Specification for miniature tractive armature q-based relays, plug-in type for railway signalling purposes	BBH2091	1
26	Signalling Fuses	Relay based interlocking fuses	SPECIFICATION FOR REPAIR, TESTING, SERVICING AND CERTIFYING OF PRIMARY AND SECONDARY SIGNAL RELAYS	BBH2457	1
27	Relay-based interlocking	Clean and Repair of Interlocking Units	Relay based interlocking fuses	BBH3103	1
		Refurbishment of interlocking units	Specification: Clean and Repair of Interlocking Units	BBC5941	3
			TFR On-site verification of bidders compliance to specification BBC5941 Version 2	BBH2565	1
			Refurbishment of interlocking units	BBC5942	3
28	Points Detection	Universal Points Detection	TFR On-site verification of bidders compliance to specification BBC5942 Version 2	BBH4474	1
29	Protected Level Crossing Controllers	Flashlight and Boom Level Crossing Protection	Required Operational Capability UNIVERSAL POINTS DETECTION SYSTEM	CSE 111	5
			LEVEL CROSSING FAIL-SAFE ELECTRONIC FLASHER UNIT	CSE 11	3
			LEVEL CROSSING FLASHLIGHT UNITS		
			AUTOMATIC HALF-ARM BARRIERS FOR USE IN FLASHLIGHT AND BOOM PROTECTED LEVEL CROSSINGS	CSE 106	2