Davicom & AM Pattern Control

GS BROADCAST TECHNICAL SERVICES LTD.

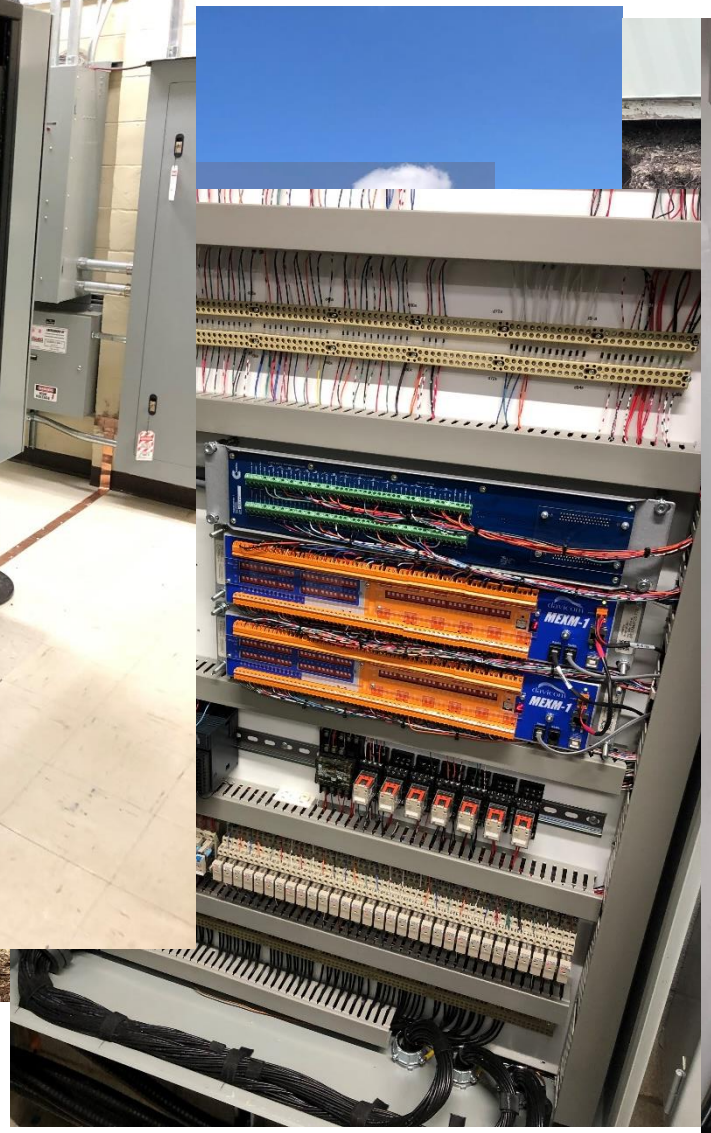
Who is G.S. Broadcast?

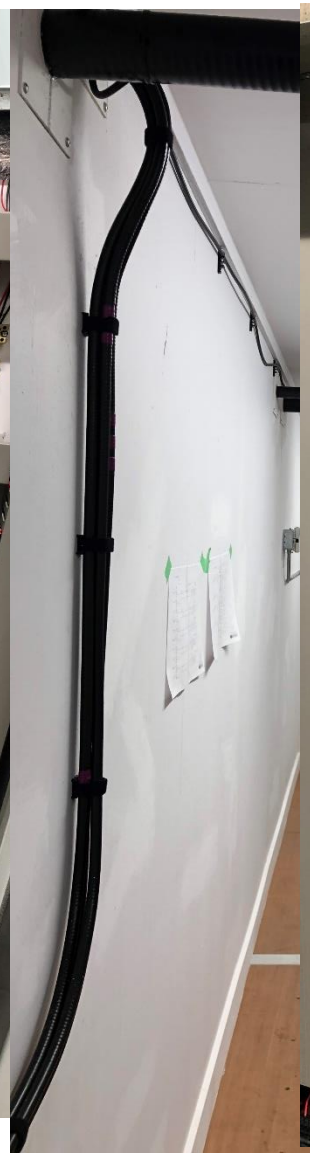
1. Equipment Reseller
2. Station maintenance
3. Systems Integrator

(Radio Studios, Radio and Television Transmitters)

GS BROADCAST
TECHNICAL SERVICES LTD.

AM Site Control





GS BROADCAST TECHNICAL SERVICES LTD.

AM Site Control

1. Cortex 360
2. MEXM-1 Expansion Cards
3. Schneider TM221 PLC

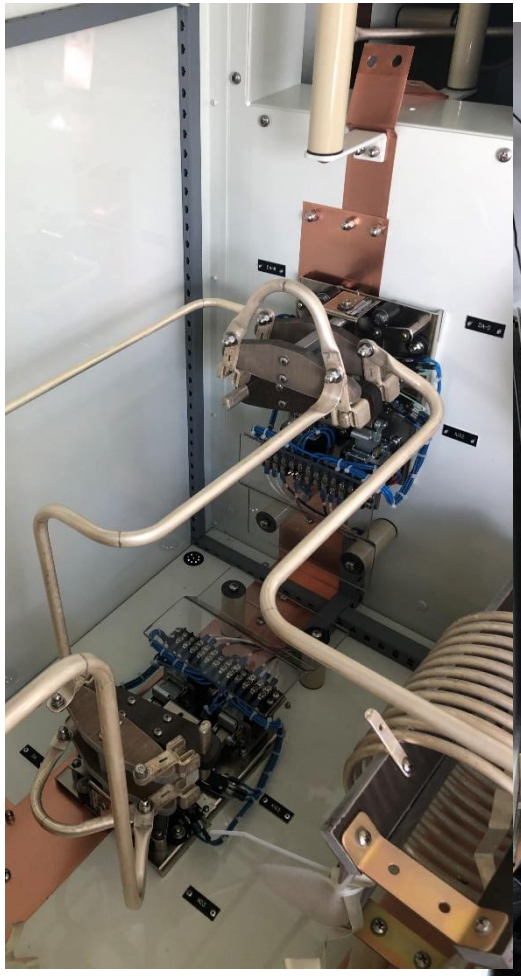
GS BROADCAST TECHNICAL SERVICES LTD.

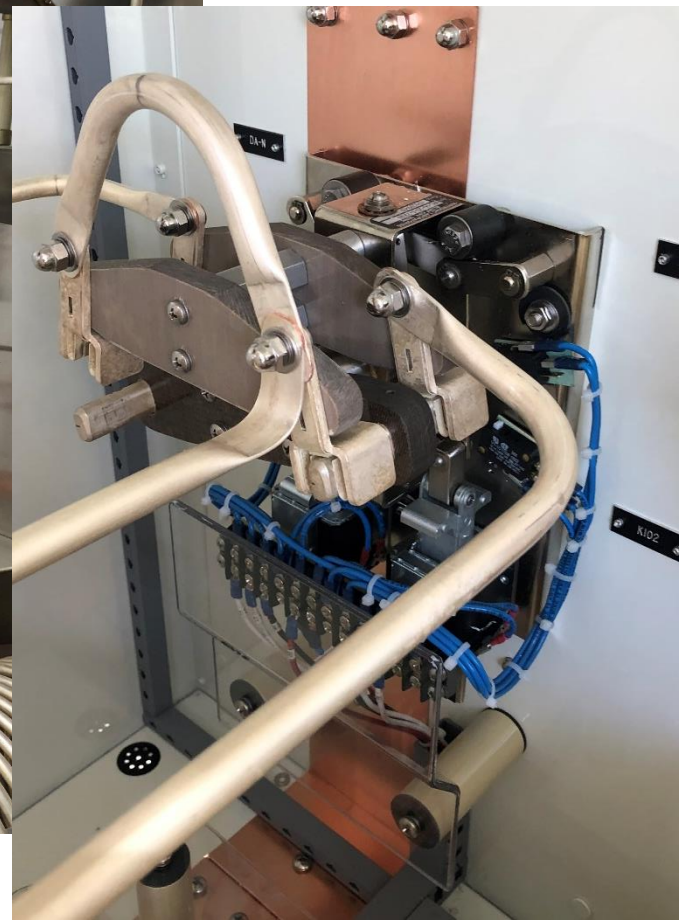
System I/O

MEXM-1 I/O Board 2

Metering		Status In		Command	
2MA1	TX B Forward Power	2MD1	TX B On-Air	2MR1	Select TX B On-Air
2MA2	TX B Reflected Power	2MD2	TX B RF On	2MR2	TX B RF On
2MA3		2MD3	TX B Interlock Open	2MR3	TX B RF Off
2MA4		2MD4	TX B PDM Inhibit	2MR4	TX B Reset
2MA5		2MD5	TX B Cutback Alarm	2MR5	TX B Lower Power
2MA6		2MD6	TX B SWR Shutback Alarm	2MR6	TX B Raise Power
2MA7		2MD7	TX B AC Power OK	2MR7	
2MA8		2MD8	TX B High B+ Alarm	2MR8	i-TX B Fault
2MA9		2MD9		2MR9	
2MA10		2MD10	Fire System Fault	2MR10	
2MA11	Hut 1 Temperature	2MD11	Fire Alarm	2MR11	i-Davicom Progaming Local
2MA12	Hut 2 Temperature	2MD12	Hut(s) Door Open	2MR12	i-Call Out Disabled
2MA13	Hut 3 Temperature	2MD13	Tower Lights Fault	2MR13	i-Davicom Alarm
2MA14	Hut 4 Temperature	2MD14	Ventilation Fault (Pressure)	2MR14	Entry Pre-Warn Sono-Alert
2MA15	Ant Coax Line Presure	2MD15	Dehydrator Fault	2MR15	Building Entry Alarm
2MA16	Ant Coax Air Flow	2MD16	Day Pattern Active	2MR16	Select Day Pattern
2MA17	Tower 1 Ratio	2MD17	Night Pattern Active	2MR17	Select Night Pattern
2MA18	Tower 1 Phase	2MD18	NDA Pattern Active	2MR18	Select NDA Pattern
2MA19	Tower 2 Ratio	2MD19	Pattern Fault	2MR19	Pattern Fault Reset
2MA20	Tower 2 Phase	2MD20	PLC Manual Mode	2MR20	PLC Manual Mode On/Off
2MA21	Tower 3 Ratio	2MD21	Field RF Inhibit Active	2MR21	
2MA22	Tower 3 Phase	2MD22	PLC Not Running	2MR22	
2MA23	Tower 4 Ratio	2MD23	PLC Fault	2MR23	
2MA24	Tower 4 Phase	2MD24	Field 24VAC Fault	2MR24	

AM antenna Systems





GS BROADCAST TECHNICAL SERVICES LTD.

Pattern Switching

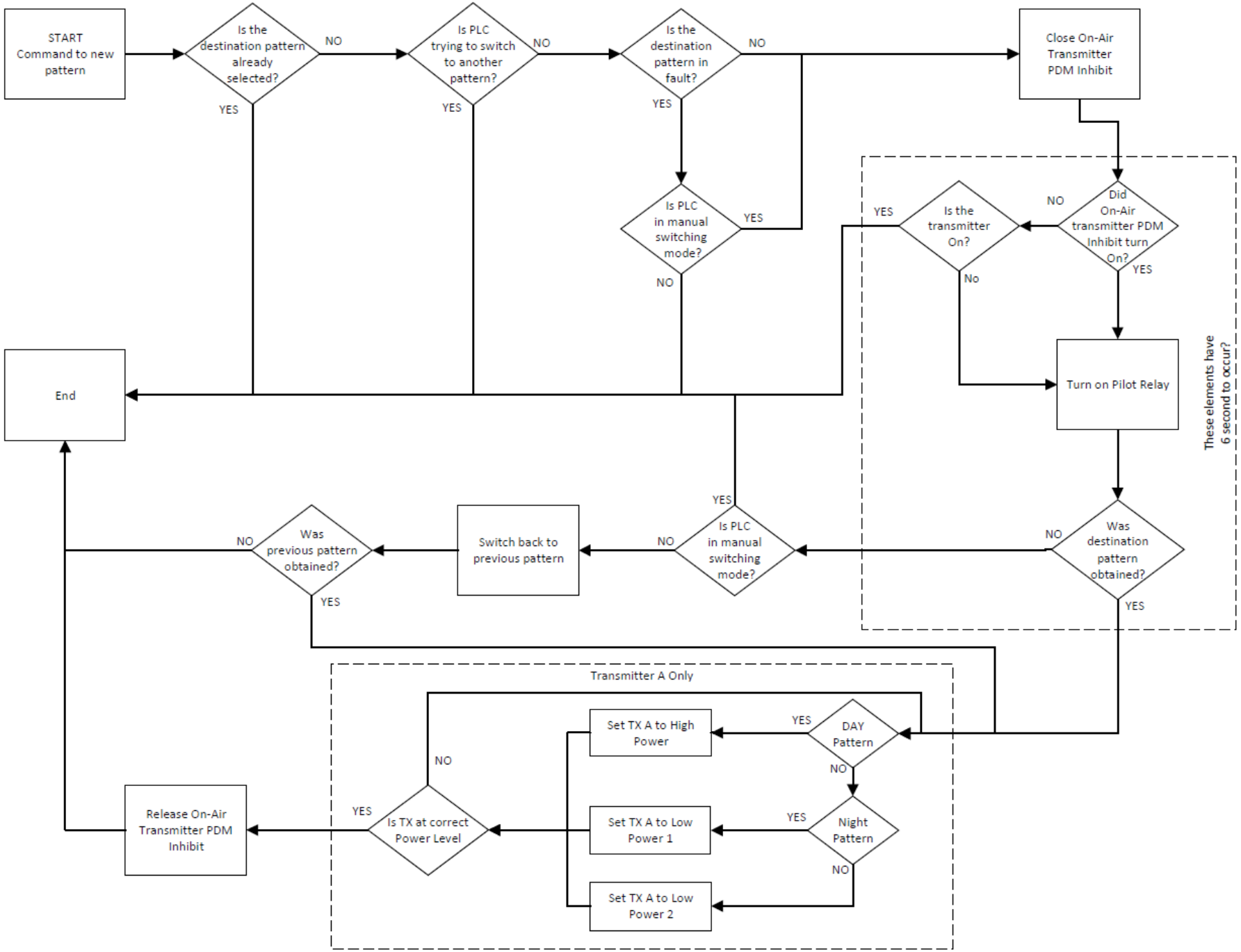
	DESCRIPTION
1H17	January Night Pattern
1H18	February Day Pattern
1H19	March Night Pattern
1H20	April Night Pattern
1H21	May Night Pattern
1H22	June Night Pattern
1H23	July Night Pattern
1H24	August Night Pattern
1H25	September Night Pattern
1H26	October Night Pattern
1H27	November Night Pattern
1H28	December Night Pattern

1V20	Pattern Switching Enabled	1O20	Pattern Switching Enabled
1V21	Pulse to Day Pattern	1O21	Timer Day Pattern
1V22	~Select Day Pattern	1O22	~Day Pattern Pulse
1V23	~Pulse to Night Pattern	1O23	
1V24	~Select Night Pattern	1O24	~Night Pattern Pulse
1V25	Set Day	1O25	
1V26		1O26	
1V27	Day Pattern Called for but not selected	1O27	
1V28	Night Pattern Called for but not selected	1O28	

2MD17	Night Pattern Active	2MR17	Select Night Pattern
2MD18	NDA Pattern Active	2MR18	Select NDA Pattern
2MD19	Pattern Fault	2MR19	Pattern Fault Reset
2MD20	PLC Manual Mode	2MR20	PLC Manual Mode On/Off

GS BROADCAST TECHNICAL SERVICES LTD.

PLC Logic



GS BROADCAST TECHNICAL SERVICES LTD.

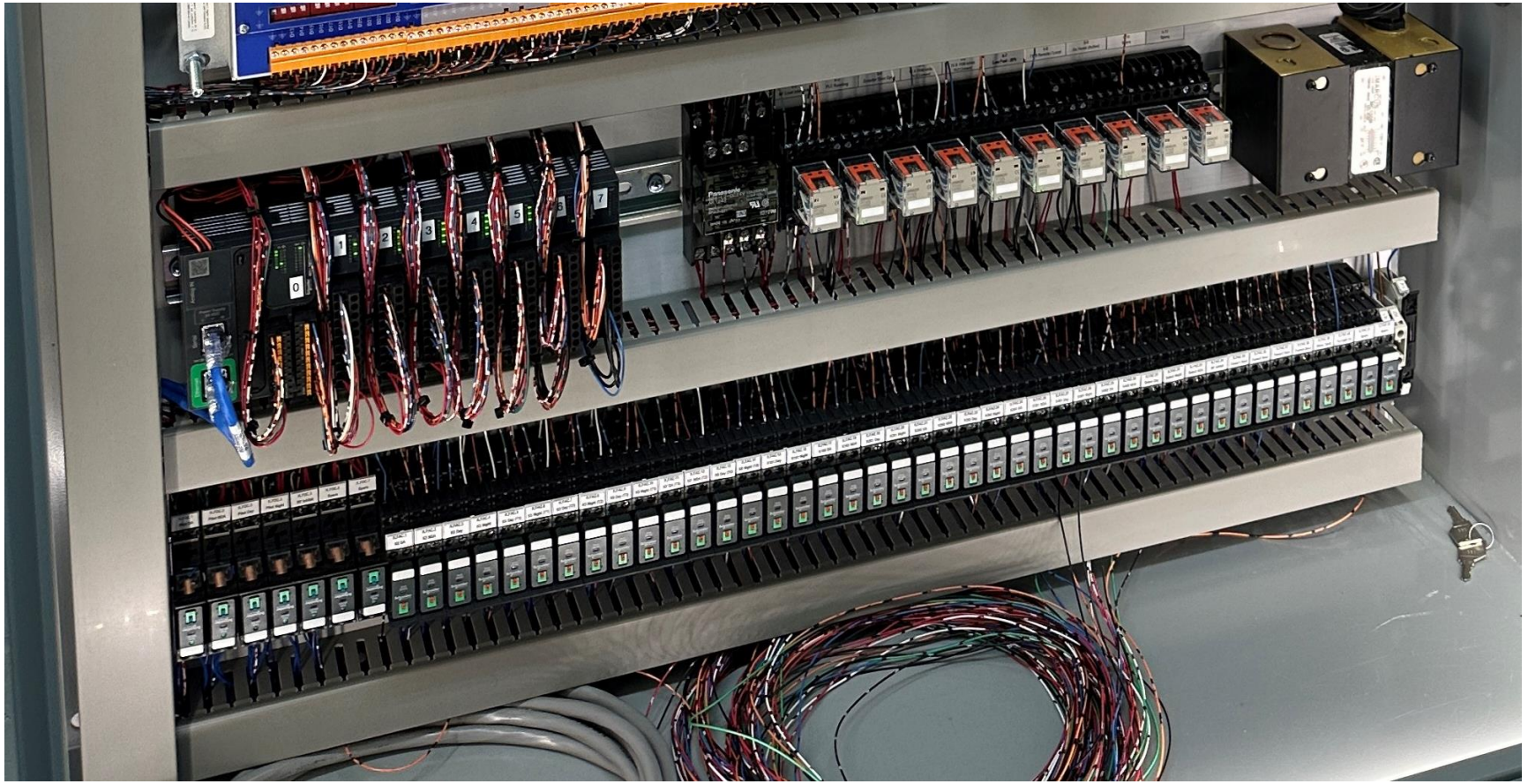
METERING INPUTS

	VALUE	DESCRIPTION
3MA1	61.20 ms	K1 Transfer Time to DA
3MA2	124.40 ms	K1 Transfer Time to NDA3
3MA3	199.00 ms	K2 Transfer Time to Day
3MA4	291.10 ms	K2 Transfer Time to Night
3MA5	209.00 ms	K3 Transfer Time to Day
3MA6	291.10 ms	K3 Transfer Time to Night
3MA7	201.00 ms	K4 Transfer Time to Day
3MA8	293.10 ms	K4 Transfer Time to Night
3MA9	53.20 ms	K5 Transfer Time to DA
3MA10	124.40 ms	K5 Transfer Time to NDA3
3MA11	197.00 ms	K101 Transfer Time to Day
3MA12	309.10 ms	K101 Transfer Time to Night
3MA13	235.10 ms	K102 Transfer Time to Day
3MA14	285.10 ms	K102 Transfer Time to Night
3MA15	52.40 ms	K103 Transfer Time to DA
3MA16	124.40 ms	K103 Transfer Time to NDA3
3MA17	114.00 ms	K401 Transfer Time to Night
3MA18	78.00 ms	K401 Transfer Time to Day/NDA3
3MA19	--	
3MA20	--	
3MA21	--	
3MA22	--	

STATUS INPUTS

	DESCRIPTION	ACT. TIMERS	
3MD1	Day Pattern Ok	00:00:00	3MT1
3MD2	Night Pattern Ok	00:00:00	3MT2
3MD3	OMNI/NDA3 Pattern Ok	00:00:00	3MT3
3MD4	K1 Ok	00:00:00	3MT4
3MD5	K2 Ok	00:00:00	3MT5
3MD6	K3 Ok	00:00:00	3MT6
3MD7	K4 Ok	00:00:00	3MT7
3MD8	K5 Ok	00:00:00	3MT8
3MD9	K101 Ok	00:00:00	3MT9
3MD10	K102 Ok	00:00:00	3MT10
3MD11	K103 Ok	00:00:00	3MT11
3MD12	K401 Ok	00:00:00	3MT12
3MD13		--	3MT13
3MD14		--	3MT14
3MD15	PLC PDM Inhibit Not Active	00:00:00	3MT15
3MD16	Shutdown From CBC Not Active	00:00:00	3MT16
3MD17	NDA1 Not Active	00:00:00	3MT17
3MD18	PLC I/O Not Forced	00:00:00	3MT18
3MD19	PLC I/O Com Ok	00:00:00	3MT19
3MD20	Field RF Inhibit Not Active	00:00:00	3MT20
3MD21	PLC Battery Ok	00:00:00	3MT21
3MD22	Phasor Building Door Closed	00:00:00	3MT22

Isolation



GS BROADCAST TECHNICAL SERVICES LTD.

Field Cables

GS BROADCAST TECHNICAL SERVICES LTD.

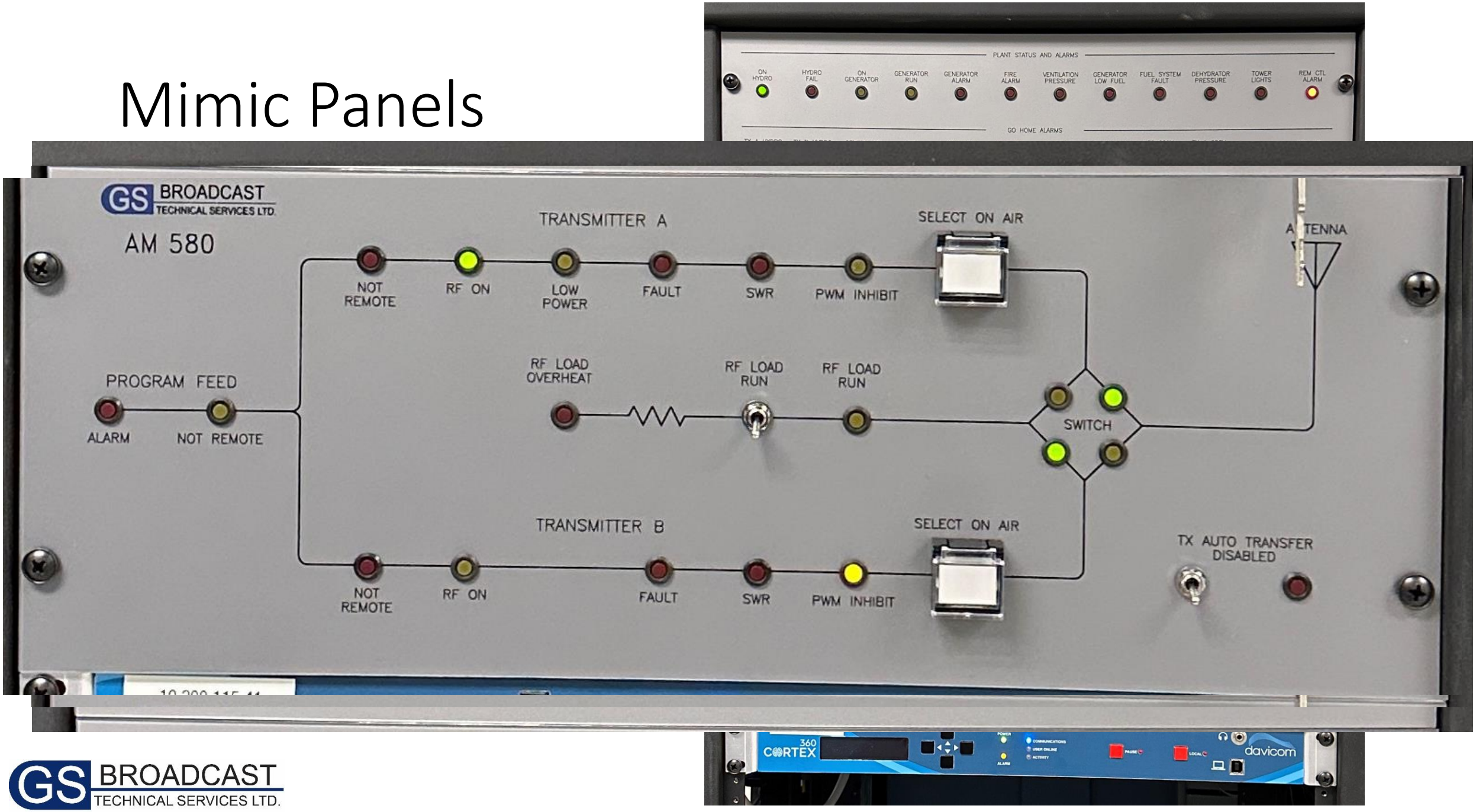
Temperature Sensors

GS BROADCAST TECHNICAL SERVICES LTD.

Site Commissioning

GS BROADCAST
TECHNICAL SERVICES LTD.

Mimic Panels



GS BROADCAST TECHNICAL SERVICES LTD.

Questions

Thank you!!

Richard Sondermeyer
richard.sondermeyer@gsbts.com
905-814-7902

www.gsbts.com (equipment resale, projects & maintenance)
Twitter: @gsbroadcasttech

GS BROADCAST TECHNICAL SERVICES LTD.