



# ASTRO<sup>®</sup> G-SERIES SITE EQUIPMENT

DATASHEET | ASTRO G-SERIES SITE EQUIPMENT



**MOTOROLA SOLUTIONS**



## COMMON PLATFORM

The ASTRO® portfolio of RF stations, receivers, site controllers and comparators make up the building blocks for Project 25 (P25) two-way radio communication systems from Motorola Solutions. ASTRO site equipment is built with flexibility, resilience and service in mind.



### **FLEXIBLE DESIGN. SOFTWARE-CONFIGURABLE.**

Because it is defined and configured through software, the common platform has the flexibility to support different modes of operations based on individual site requirements. Simple software downloads provide cyber security patches, new features and technology migrations to carry your needs into the future.



### **ALWAYS AVAILABLE. RESILIENT TO DISRUPTION.**

Built to last, ASTRO sites continue to provide wide-area communication regardless of the conditions. From technology that delivers superior coverage to site designs with no single point of failure (resulting in no more than 1 channel removed from service), ASTRO sites provide best-in-class performance.



### **SERVICE MADE EASY.**

ASTRO sites are built to ease service and maintenance with front access modules, cable connections and LED indicators. Hot-swap modules ensure channels are back on the air with minimal downtime. Remote software upgrades with rolling activation makes it easy to stay up to date with minimal disruption.

# TOPOLOGIES

Whether analog, digital, conventional or trunked, ASTRO sites support various modes of operation and can be software-configured based on need.

## TRUNKING

ASTRO sites support P25 FDMA and TDMA trunking operations ranging from single site to large regional systems. The sites support seamless interoperability with the ability to dynamically switch between FDMA and TDMA without any user intervention or awareness.

## CONVENTIONAL

The equipment can be configured to support analog conventional or P25 digital conventional operation. Mixed mode operation supports fleets of both radio types to allow a gradual migration from analog to digital. The ASTRO site components can be used separately for a single conventional repeater or together for a large statewide or country-wide conventional system.

## SIMULCAST

When configured for simulcast operation, additional timing and voting equipment allow adjacent sites to utilize the same frequencies with minimal audio degradation. ASTRO sites support both conventional and trunking simulcast systems. Linear Simulcast Modulation (LSM) enables greater spacing without sacrificing coverage or capacity, resulting in fewer sites to build and maintain.

## DATA

ASTRO trunking and conventional systems can be enabled with P25 Integrated Data to support basic user data needs. Base station channels can dynamically switch from voice to data based on the call type. ASTRO Enhanced Data optimizes the data channel for applications with a high amount of short inbound data messages like location, telemetry and biometrics, and can improve data efficiency by 12X over standard P25 data.





## GTR 8000 BASE RADIO (T7039A)

From conventional to trunking, single repeater to multisite, FDMA to TDMA, and available in multiple frequency bands, the GTR 8000 offers design flexibility and investment protection in a high performance package.

### GENERAL SPECIFICATIONS

		700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz
<b>Size (HxWxD)</b>		5.25 x 19 x 18 in (133 x 483 x 457 mm)			
<b>Weight</b>		46 lb (21 kg)	46 lb (21 kg)	46 lb (21 kg)	48 lb (22 kg)
<b>Temperature Range</b>		-22 to 140 °F (-30 to 60 °C)			
<b>Power Requirements</b>		AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC			
<b>Power Consumption</b>	<b>Efficiency Package</b>	C4FM, FM: 405 W LSM, H-DQPSK: 425 W	C4FM, FM: 410 W LSM, H-DQPSK: 445 W	C4FM, FM: 405 W LSM, H-DQPSK: 315 W	C4FM, FM: 700 W
	<b>Standard</b>	C4FM, FM: 430 W LSM, H-DQPSK: 470 W	C4FM, FM: 435 W LSM, H-DQPSK: 455 W	C4FM, FM: 435 W LSM, H-DQPSK: 345 W	C4FM, FM: 725 W
<b>Antenna Connectors TX</b>		N female			
<b>Antenna Connectors RX</b>	<b>Standard</b>	BNC female			
	<b>Optional Preselector</b>	N female			
<b>Channel Spacing</b>		12.5/25 kHz	12.5/25 kHz	12.5/15/25/30 kHz	12.5/25 kHz
<b>Modulation</b>	<b>TX</b>	C4FM, LSM, H-DQPSK, FM	C4FM, LSM, H-DQPSK, FM	C4FM, LSM, H-DQPSK, FM	FM, C4FM
	<b>RX</b>	C4FM, H-CPM, FM			
<b>Frequency Stability</b>		100 ppb/2 yr or External Reference			

## TRANSMITTER

	700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz
<b>Frequency Range</b>	764-776, 851-870 MHz	380-435, 435-524 MHz	136-174 MHz	851-870 MHz
<b>Power Output</b>	2-100 W	C4FM, FM: 2-110 W H-DQPSK, LSM: 2-100 W	C4FM, FM: 2-100 W H-DQPSK, LSM: 2-60 W	High Power: 15-150 W Low Power: 2-30 W
<b>Electronic Bandwidth</b>	Full Bandwidth			
<b>Modulation Fidelity</b>	5%			
<b>Intermodulation Attenuation</b>	80 dB	65 dB	55 dB	55 dB
<b>Spurious and Harmonic Emissions Attenuation</b>	90 dB			
<b>Analog FM Hum and Noise</b>	<b>12.5 kHz channel</b>	45 dB		
	<b>25 kHz channel</b>	50 dB		
<b>Analog Audio Distortion</b>	<2% at 1000 Hz	<2% at 1000 Hz (Typical: 1%)	<2% at 1000 Hz (Typical: 1%)	<2% at 1000 Hz
<b>Emissions Designators</b>	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 10K0F1E, 10K0F1D, 10K0F1W, 9K80D7E, 9K80D7D, 9K80D7W, 17K7D7D, 16K0F1D, 16K0F3E, 11K0F3E, 14K0F1D, 14K0F3E, 21K7D7E, 21K7D7D, 21K7D7W	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 9K80D7E, 9K80D7D, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F1D, 16K0F3E	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 9K80D7E, 9K80D7D, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F1D, 16K0F3E	High Power: 8K10F1E, 8K10F1D, 8K10F1W, 16K0F1D, 16K0F3E, 11K0F3E, 14K0F1D, 14K0F3  Low Power: 8K10F1D, 8K10F1E, 8K10F1W, 8K70D1W, 8K70D7W, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F3E, 16K0F1D

## RECEIVER

	700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz
<b>Frequency Range</b>	792-825 MHz	380-435, 435-524 MHz	136-174 MHz	806-825 MHz
<b>Analog Sensitivity (12 dB SINAD)</b>	<b>12.5 kHz channel</b>	-118 dBm	-118 dBm	-118 dBm
	<b>25 kHz channel</b>	-117 dBm	-117 dBm	-117 dBm
<b>Digital Sensitivity (5% BER)</b>	<b>C4FM</b>	-118 dBm	-118 dBm	-118 dBm
	<b>H-CPM</b>	-116 dBm	-116 dBm	-116 dBm
<b>Intermodulation Rejection</b>	85 dB			
<b>Digital Adjacent Channel Rejection</b>	60 dB			
<b>Analog Adj Channel Rejection (EIA603)</b>	<b>12.5 kHz channel</b>	75 dB		
<b>Analog Adj Channel Rejection (TIA603D)</b>	<b>12.5 kHz channel</b>	50 or 60 dB (adjustable)		
	<b>25 kHz channel</b>	80 dB		
<b>Spurious and Image Response Rejection</b>	<b>Standard</b>	85 dB	85 dB	90 dB
	<b>With optional preselector</b>	100 dB	100 dB	95 dB
<b>Analog Audio Response</b>	+1, -3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output			
<b>Analog Audio Distortion</b>	3% or 5% (adjustable)			
<b>Analog FM Hum and Noise</b>	<b>12.5 kHz channel</b>	45 dB		
	<b>25 kHz channel</b>	50 dB		
<b>Intermediate Frequency</b>	<b>First</b>	73.35 MHz	73.35 MHz	44.85 MHz
	<b>Second</b>	2.16 MHz		

# GTR 8000 EXPANDABLE SITE SUBSYSTEM (SQM01SUM7054A)

The single rack design of the GTR 8000 Expandable Site Subsystem (ESS) houses up to 6 channels with RF distribution and power systems. Factory-configured and tuned to your specific system, it makes installation quick and easy. Connect multiple ESS racks to achieve maximum site capacity.

GENERAL SPECIFICATIONS						
	700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz	900 MHz	
<b>Number of Channels</b>	1 to 6	1 to 6	1 to 6	2 to 6	1 to 6	
<b>Height with 7.5 ft Rack</b>	90.4 in (2300 mm)					
<b>Footprint (W x D) with 7.5 ft Rack</b>	20.5 x 23.5 in (520 x 600 mm)					
<b>Weight with 7.5 ft Rack</b>	520 lb (235 kg)	UHF R1: 475 lb (215 kg) UHF R2: 565 lb (260 kg)	475 lb (215 kg)	538 lb (246 kg)	575 lb (260 kg)	
<b>Temperature Range</b>	-22 to 140 °F (-30 to 60 °C)					
<b>Power Requirements</b>	AC: 90-264 VAC, 47-63 Hz, DC: 43.2-60 VDC					
<b>Power Consumption</b>	<b>C4FM,FM</b>	2900 W	2500 W	2650 W	4580 W	3700 W
	<b>LSM, H-DQPSK</b>	3100 W	2700 W	2200 W	N/A	4100 W
	<b>C4FM,FM (Efficiency Package)</b>	2755 W	2325 W	2500 W	4310 W	3700 W
	<b>LSM, H-DQPSK (Efficiency Package)</b>	2900 W	2500 W	2100 W	N/A	4100 W
<b>Antenna Connectors</b>	<b>TX</b>	7/16 or N Female	7/16 Female	N Female	N Female	7/16 Female
	<b>RX</b>	N Female	N Female	BNC Female	N Female	N female
<b>Channel Spacing</b>	12.5/25 kHz	12.5/25 kHz	12.5/15/ 25/30 kHz	12.5/25 kHz	12.5 kHz	
<b>Transmit Combiner Spacing</b>	100 or 150 kHz	150 kHz (450 - 512 MHz) N/A (380-450, 512-524 MHz)	N/A	N/A	12.5 kHz (Hybrid) 150 kHz (Cavity)	
<b>Modulation</b>	<b>TX</b>	C4FM, LSM, H-DQPSK, FM	C4FM, LSM, H-DQPSK, FM	C4FM, LSM, H-DQPSK, FM	FM, C4FM	C4FM, LSM, H-DQPSK
	<b>RX</b>	C4FM, H-CPM, FM	C4FM, H-CPM, FM	C4FM, H-CPM, FM	C4FM, H-CPM, FM	C4FM, H-CPM
<b>Frequency Stability</b>	Repeater Site: 100 ppb/2 yr					
	Simulcast (Multisite): GPS synchronized					



## TRANSMITTER (CABINET OUTPUT)

	700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz	900 MHz
<b>Frequency Range</b>	764-776, 851-870 MHz	380-435, 435-524 MHz	136-174 MHz	851-870 MHz	935-941 MHz
<b>Power Output</b>	1-40 W	C4FM, FM: 2-110 W (380-450, 512-524 MHz) LSM, H-DQPSK: 2-100 W (380-450, 512-524 MHz) C4FM, FM: 1-33 W (450-512 MHz) LSM, H-DQPSK: 1-30 W (450-512 MHz)	C4FM, FM: 2-100 W LSM, H-DQPSK: 2-60 W	13-134 W	2-way Hybrid: 1-37 W 3-way Hybrid: 1-22 W 4-way Hybrid: 1-17 W 5-way Hybrid: 1-12 W 6-way Hybrid: 1-10 W
<b>Modulation Fidelity</b>	5%				
<b>Intermodulation Attenuation</b>	80 dB	80 dB (450-512 MHz), 65 dB (380-450, 512-524 MHz)	55 dB	55 dB	80 dB
<b>Spurious / Harmonic Emissions Attenuation</b>	90 dB				
<b>Analog FM Hum / Noise</b>	<b>12.5 kHz channel</b>	45 dB	45 dB	45 dB	TBA
	<b>25 kHz channel</b>	50 dB	50 dB	50 dB	TBA
<b>Analog Audio Distortion</b>	<2% at 1000 Hz, 1% typ for UHF and VHF bands				
<b>Emissions Designators</b>	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 10K0F1E, 10K0F1D, 10K0F1W, 9K80D7E, 9K80D7D, 9K80D7W, 17K7D7D, 16K0F1D, 16K0F3E, 11K0F3E, 14K0F1D, 14K0F3E, 21K7D7E, 21K7D7D, 21K7D7W	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 9K80D7E, 9K80D7D, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F1D, 16K0F3E	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 9K80D7E, 9K80D7D, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F1D, 16K0F3E	8K10F1E, 8K10F1D, 8K10F1W, 10K0F1E, 10K0F1D, 10K0F1W, 16K0F1D, 16K0F3E, 11K0F3E, 14K0F1D, 14K0F3E	8K70D1E, 8K70D1D, 8K70D1W, 8K10F1E, 8K10F1D, 8K10F1W, 9K80D7E, 9K80D7D, 9K80D7W, 10K0F1D, 11K0F3E, 16K0F1D, 16K0F3E

Does not include Transmitter RF Distribution System for VHF, UHF 380-450, 512-524 MHz and High Power 800 MHz.

## RF DISTRIBUTION SYSTEM (TX)

	700/800 MHz Cavity	900 MHz Hybrid	UHF Cavity
<b>Frequency Range</b>	764-776 MHz 851-870 MHz	935-941 MHz	450-512 MHz
<b>Insertion Loss (150 kHz spacing)</b>	3.1 dB typ	2-way loss: 4.4 dB typ 3-way loss: 6.3 dB typ 4-way loss: 7.6 dB typ 5-way loss: 8.8 dB typ 6-way loss: 9.7 dB typ	4.5 dB typ
<b>Tx-Tx Isolation (150 kHz spacing)</b>	32 dB	20 dB	32 dB

## RF DISTRIBUTION SYSTEM (RX)

	700/800/900 MHz	UHF
<b>Frequency Range</b>	792-825 MHz or 896-902 MHz	450-512 MHz
<b>Noise Figure</b>	3.8 / 5 dB	4.6 / 5.5 dB
<b>Gain</b>	13 / -16 to 24 dB adjustable	10 / -16 to 24 dB adjustable
<b>3rd Order Output Intercept (Typ)</b>	21 dBm	19 dBm
<b>Amplifier Intercept</b>	35 dBm	40 dBm
<b>Preselector Bandwidth</b>	792-825 MHz or 896-902 MHz	2 or 3.5 MHz
<b>RF Input Connector Type</b>	N (Female)	N (Female)
<b>RF Output Connector Type</b>	BNC (Female)	BNC (Female)

**RECEIVER (TOP OF CABINET)**

	700/800 MHz	UHF Range 1 UHF Range 2	VHF	High Power 800 MHz	900 MHz
<b>Frequency Range</b>	792-825 MHz	380-435, 435-524 MHz	136-174 MHz	806-825 MHz	896-902 MHz
<b>Analog Sensitivity (12 dB SINAD)</b>					
<b>12.5 kHz channel</b>	-123 dBm	-117 dBm (380-450, 512-524 MHz) -121.5 dBm (450-512 MHz)	-118 dBm (12.5/15 kHz)	-123 dBm	N/A
<b>25 kHz channel</b>	-122 dBm	-116 dBm (380-450, 512-524 MHz) -120.5 dBm (450-512 MHz)	-117 dBm (25/30 kHz)	-122 dBm	N/A
<b>Digital Sensitivity (5% BER)</b>					
<b>C4FM</b>	-123 dBm	-117 dBm (380-450, 512-524 MHz) -121.5 dBm (450-512 MHz)	-118 dBm	-123 dBm	-123 dBm
<b>H-CPM</b>	-121 dBm	-115 dBm (380-450, 512-524 MHz) -119.5 dBm (450-512 MHz)	-116 dBm	N/A	-121 dBm
<b>Intermodulation Rejection</b>	80 dB				
<b>Digital Adjacent Channel Rejection</b>	60 dB				
<b>Analog Adjacent Channel Rejection (EIA603)</b>	75 dB	75 dB	75 dB	75 dB	N/A
<b>Analog Adjacent Channel Rejection (TIA603D)</b>					
<b>12.5 kHz channel</b>	50 or 60 dB (adjustable)	50 or 60 dB (adjustable)	50 or 60 dB (adjustable)	50 or 60 dB (adjustable)	N/A
<b>25 kHz channel</b>	80 dB	80 dB	80 dB	80 dB	N/A
<b>Spurious and Image Response Rejection</b>	100 dB	85 dB (380-435 MHz) 100 dB (450-512 MHz)	90 dB	100 dB	100 dB
<b>Analog Audio Response</b>	+1, -3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output				
<b>Analog Audio Distortion</b>	3% or 5% (adjustable)	3% or 5% (adjustable)	3% or 5% (adjustable)	3% or 5% (adjustable)	N/A
<b>Analog FM Hum / Noise</b>					
<b>12.5 kHz channel</b>	45 dB	45 dB	45 dB	45 dB	N/A
<b>25 kHz channel</b>	50 dB	50 dB	50 dB	50 dB	N/A
<b>Intermediate Frequency</b>					
<b>First</b>	73.35 MHz	73.35 MHz	44.85 MHz	73.35 MHz	73.35 MHz
<b>Second</b>	2.16 MHz				

**GCM 8000 COMPARATOR (T7321A)**
**GENERAL SPECIFICATIONS**

	TRUNKING SYSTEMS
<b>Channel Capacity</b>	1 or 2
<b>Size (HxWxD)</b>	5.25 x 19 x 18 in (133 x 483 x 457 mm)
<b>Weight</b>	40 lb (18 kg)
<b>Temperature Range</b>	-22 to 140°F (-30 to 60°C)
<b>Rack Option</b>	19 in standard rack mountable
<b>Time Stability</b>	External Reference
<b>Power Requirements</b>	AC: 90-264 VAC 47-63Hz DC: 43.2-60 VDC
<b>Power Consumption</b>	AC: 1 module 130 W AC: 2 modules 160 W DC: 1 module 60 W DC: 2 modules 80 W

**GRV 8000 COMPARATOR (T8341A)**
**GENERAL SPECIFICATIONS**

	CONVENTIONAL SYSTEMS
<b>Channel Capacity</b>	1 or 2
<b>Size (HxWxD)</b>	5.25 x 19 x 18 in (133 x 483 x 457 mm)
<b>Weight</b>	36 lb (16 kg)
<b>Temperature Range</b>	-22 to 140°F (-30 to 60°C)
<b>Rack Option</b>	19 in standard rack mountable
<b>Time Stability</b>	External Reference
<b>Power Requirements</b>	AC: 90-264 VAC 47-63Hz DC: 43.2-60 VDC
<b>Power Consumption</b>	AC: 1 module 80 W AC: 2 modules 105 W DC: 1 module 50 W DC: 2 modules 75 W

## GPW 8000 RECEIVER (T7540A)

### GENERAL SPECIFICATIONS

		700/800 MHz	UHF Range 1	VHF	900 MHz
<b>Frequency Range</b>		792-825 MHz	380-435, 435-524 MHz	136-174 MHz	896-902 MHz
<b>Size (HxWxD)</b>		5.25 x 19 x 18 in (133 x 483 x 457 mm)			
<b>Weight</b>		36 lb (16 kg)			
<b>Temperature Range</b>		-22 to 140°F (-30 to 60°C)			
<b>Power Requirements</b>		AC: 90-264 VAC 47-63Hz or DC: 43.2-60 VDC			
<b>Power Consumption (1 Module / 2 Modules)</b>		AC: 80 / 105 W or with AC Power Efficiency Package: 40 / 65 W			
		DC: 50 / 75 W or with DC Power Efficiency Package: 30 / 50 W			
<b>Antenna Connectors</b>	<b>Standard</b>	BNC Female			
	<b>With Optional Preselector</b>	N Female			
<b>Modulation</b>		C4FM, FM			
<b>Frequency Stability</b>		Conventional: 100 ppb/2 yr			
<b>Analog Sensitivity (12 dB SINAD)</b>	<b>12.5 kHz channel</b>	-118 dBm	-118 dBm	-119 dBm (12.5/15 kHz)	N/A
	<b>25 kHz channel</b>	-117 dBm	-117 dBm	-118 dBm (25/30 kHz)	N/A
<b>Digital Sensitivity (5% BER)</b>	<b>C4FM</b>	-118 dBm	-118 dBm	-119 dBm	-118 dBm
	<b>H-CPM</b>	-116 dBm	-116 dBm	-117 dBm	-116 dBm
<b>Intermodulation Rejection</b>		85 dB	85 dB	85 dB	N/A
<b>Digital Adjacent Channel Rejection</b>		60 dB	60 dB	60 dB	N/A
<b>Analog Adjacent Channel Rejection (EIA603)</b>	<b>12.5 / 25 kHz channel</b>	75 dB	75 dB	75 dB	TBA
<b>Analog Adjacent Channel Rejection (TIA603D)</b>	<b>12.5 kHz channel</b>	50 or 60 dB (adjustable)	50 or 60 dB (adjustable)	50 or 60 dB (adjustable)	TBA
	<b>25 kHz channel</b>	80 dB	80 dB	80 dB	TBA
<b>Spurious and Image Response Rejection</b>	<b>Standard</b>	85 dB	85 dB	90 dB	90 dB
	<b>With Optional Preselector</b>	100 dB	100 dB	95 dB	N/A
<b>Analog Audio Response</b>		+1, -3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output			
<b>Analog Audio Distortion</b>		3% or 5% (adjustable)			
<b>Analog FM Hum and Noise</b>		12.5 kHz channel: 45 dB, 15 kHz channel: 50 dB			
<b>Intermediate Frequency</b>	<b>First</b>	73.35 MHz	73.35 MHz	44.85 MHz	73.35 MHz
	<b>Second</b>	2.16 MHz			

## GCP 8000 SITE CONTROLLER (T7038A)

### GENERAL SPECIFICATIONS

<b>Channel Capacity</b>	Repeater Site: 28	<b>Rack Option</b>	19 in standard rack mountable
	Simulcast (Multicast): 30	<b>Frequency Stability</b>	Simulcast (Multisite): External
<b>Size (HxWxD)</b>	5.25 x 19 x 18 in (133 x 483 x 457 mm)	<b>Power Requirements</b>	AC: 90-264 V, 47-63 Hz or DC: 43.2-60 V
<b>Weight</b>	40 lb (18 kg)	<b>Power Consumption</b>	AC: 130 W, DC: 60 W
<b>Temperature Range</b>	-22 to 140 °F (-30 to 60 °C)		

## DSC 8000 SITE CONTROLLER / REFERENCE DISTRIBUTION MODULE (T8810A)

### GENERAL SPECIFICATIONS

<b>Channel Capacity</b>	Repeater Site: 28	<b>Rack Option</b>	19 in standard rack mountable
	Simulcast (Multicast): 30	<b>Frequency Stability</b>	Opt. redundant GPS, Opt. redundant GPS with Rubidium extended hold-over, or External Reference
<b>Size (HxWxD)</b>	1.72 x 19 x 15.98 in (43.8 x 483 x 406 mm)	<b>Power Requirements</b>	AC: 90-264 V, 47-63 Hz or DC: 26.5-60 V
<b>Weight</b>	19.8 lb (9 kg)	<b>Power Consumption</b>	AC: 115 W, DC: 100 W
<b>Temperature Range (Operating)</b>	-22 to 140 °F (-30 to 60 °C)	<b>Relative Humidity</b>	15% to 90%, non-condensing
<b>Temperature Range (Non-Operating)</b>	-40 to 185 °F (-40 to 85 °C)		



DSC 8000 Site Controller /  
Reference Distribution Module (T8810A)

## DSC 8000 AC POWER SUPPLY (T8811A)

### GENERAL SPECIFICATIONS

<b>Size (HxWxD)</b>	1.72 x 19 x 15.98 in (43.8 x 483 x 406 mm)	<b>Rack Option</b>	19 in standard rack mountable with included brackets
<b>Weight</b>	22.4 lb (10.2kg)	<b>Power Requirements</b>	AC: 90-264 V, 47-63 Hz
<b>Temperature Range (Operating)</b>	-22 to 140 °F (-30 to 60 °C)	<b>Power Consumption (per DSC 8000)</b>	AC: 115 W
<b>Temperature Range (Non-Operating)</b>	-40 to 185 °F (-40 to 85 °C)	<b>Relative Humidity</b>	15% to 90%, non-condensing



DSC 8000 AC Power Supply (T8811A)

## DSC HUB (T7038A)

### GENERAL SPECIFICATIONS (CHASSIS WITH 2 DSC HUBS)

<b>Channel Capacity</b>	6 channels	<b>Rack Option</b>	19 in standard rack mountable
<b>Size (HxWxD)</b>	5.25 x 19 x 18 in (133 x 483 x 457 mm)	<b>Power Requirements</b>	Powered by GTR 8000 / GPW 8000
<b>Weight</b>	33 lb (15 kg)	<b>Power Consumption</b>	DC: 22 W
<b>Temperature Range (Operating)</b>	-22 to 140 °F (-30 to 60 °C)	<b>Relative Humidity</b>	15% to 90%, non-condensing
<b>Temperature Range (Non-Operating)</b>	-40 to 185 °F (-40 to 85 °C)		



## G-SERIES COMPACT SITE

Protected from the elements, the G-Series Compact Site is a complete ASTRO site that can house up to three GTR 8000 Base Radios in an outdoor, environmentally controlled cabinet. It is ideal for Project 25 (P25) deployments where building enclosures are not cost effective or not feasible due to difficult terrain.

<b>Frequency Band</b>	700 MHz, 800 MHz
<b>Size (HxWxD)</b>	51.2 x 27.2 x 36.5 in (1300 x 690 x 925 mm): Pole Mount 59.5 x 27.2 x 36.5 in (1510 x 690 x 925 mm): Pad Mount 55.3 x 27.2 x 36.5 in (1405 x 690 x 925 mm): Wall Mount
<b>Weight</b>	230 lb (104 kg) empty, 460 lb (209 kg) fully loaded
<b>Temperature Range (External to Cabinet)</b>	-22 to 122 °F (-30 to 50 °C)
<b>Mounting Options</b>	Pole, Pad, or Wall Mountable



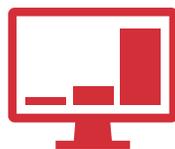
## SERVICES

Choose the right level of services you need to achieve mission-critical performance for your ASTRO system. The more you engage Motorola Solutions, the more you transfer the risk to us and achieve peace of mind in maximizing your uptime.



### ESSENTIAL

Technical support when and where you need it, so you can maintain and restore your system.



### ADVANCED

Rely on us to monitor and update your network, providing improved network response and continuity.



### PREMIER

Transfer day-to-day accountability to us to operate and optimize all or part of your system to maximize performance and reduce risk.



## FCC TYPE ACCEPTANCE

Frequency Range	Type	Power Output	Type Acceptance Number
136-174 MHz	Transmitter	2-100 W	ABZ89FC3790B, ABZ89FC3799B
136-174 MHz	Receiver	N/A	ABZ89FR3791B
406-435 MHz	Transmitter	2-110 W	ABZ89FC4821C
406-435 MHz	Receiver	N/A	ABZ89FR4822B
435-512 MHz	Transmitter	2-110 W	ABZ89FC4819C
435-512 MHz	Receiver	N/A	ABZ89FR4820B
764-776 MHz	Transmitter	2-100 W	ABZ89FC5812B
851-870 MHz	Transmitter	2-100 W	ABZ89FC5810B
792-825 MHz	Receiver	N/A	ABZ89FR5811B
935-941 MHz	Transmitter	2-120 W	ABZ89FC5823B
896-902 MHz	Receiver	N/A	ABZ89FR5824B
851-870 MHz	Transmitter	15-150 W	ABZ89FC5825B

## EU REGULATORY COMPLIANCE

CE mark is available on the GTR 8000 Base Radio (T7039A) and GPW 8000 Receiver (T7540A) in the following frequency ranges: UHF 380-525 MHz and VHF 136-174 MHz.

### NOTES

- All specifications shown are typical unless otherwise noted.
- All specifications are subject to change without notice.

For more information, please visit us on the web at: [www.motorolasolutions.com/ASTRO](http://www.motorolasolutions.com/ASTRO)



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