

# Mobile and Fixed Antenna Controls Comparison

General Dynamics SATCOM Technologies provides a wide range of mobile and fixed antenna control systems for transit/receive and receive only applications. These precision products and systems provide cost-effective solutions to keep you connected and in control of your antennas at all times. Our high-end controllers feature Optrack, the industry's most time-tested and reliable tracking algorithm.

Mobile Controls	815A	820A	825A	830A	123T-1
<b>Antennas Supported</b>	C060QDM, C060QDA, C060FA, C100FA, C125FA, C140FA	C125M, C140M, C180M, C240M	C180F, C240F	C125M, C140M, C180M, C240M	C125M, C140M, C180M, C240M
<b>Tracking</b>	N/A; Autoacquire and Peak	Norad, StepTrack, MemTrack	Norad, StepTrack, MemTrack	Norad, StepTrack, MemTrack	Norad, Steptrack, MemTrack, Optrack
<b>RF Type</b>	DVB, Beacon	DVB, Beacon	DVB, Beacon	Beacon	Beacon
<b>Outdoor Rated</b>	Yes	No	Yes	No	No
<b>Accuracy</b>	N/A; Autoacquire and Peak	10% RMS of receive bandwidth, up to 5 degrees satellite inclination	10% RMS of receive bandwidth, up to 5 degrees satellite inclination	10% RMS of receive bandwidth, up to 5 degrees satellite inclination	5% RMS of receive bandwidth, up to 15 degrees satellite inclination
<b>Color Touch Screen</b>	No	No	No	Yes	No

Fixed Controls	830A (3.8m, 4.6m, 4.8m)	930A	940A	950A <sup>1</sup>	960A <sup>1,2</sup>
<b>Pointing</b>	Norad, Manual Point with Az/EI or Lat/Lon, and Jog	Intelsat, Manual Point with Az/EI or Lat/Lon, and Jog	Intelsat, Norad, Manual Point with Az/EI or Lat/Lon, and Jog	Intelsat, Norad, Manual Point with Az/EI or Lat/Lon, and Jog	Intelsat, Norad, Manual Point with Az/EI or Lat/Lon, and Jog
<b>Tracking</b>	StepTrack, MemTrack	StepTrack, Table Track	StepTrack, Optrack	StepTrack, Optrack, Monopulse (optional)	StepTrack, Optrack, Monopulse (optional)
<b>Motor Support</b>	Up to 0.3HP (DC)	Up to 5HP (AC)	Up to 5HP (AC)	Up to 10HP (AC)	Up to 5HP (AC Vector)
<b>Feedback Devices</b>	Incremental Encoders, Resolvers	Resolvers	Resolvers, Optical Encoders	Resolvers, Optical Encoders	Resolvers, Optical Encoders
<b>Drive Cabinet</b>	N/A, integrated	7150 Drive Cabinet	7150 Drive Cabinet	950A PDU Cabinet with single Ethernet IFL run	960A PDU Cabinet with single Ethernet IFL run
<b>Fiber Option (Lightning Protection)</b>	No	No	No	Yes	Yes
<b>Dual Limits</b>	No	No	No	Yes	Yes
<b>Optimized Multi-Band Track and Scan</b>	No	No	No	Yes	Yes
<b>Tracking Accuracy</b>	Typically better than 10% of the receive beamwidth with satellite inclinations up to 5°.	Typically better than 10% of the receive beamwidth in winds of 30 mph gusting to 45 mph, satellite inclination of up to 5°.	Typically better than 5% of the receive beamwidth in winds of 30 mph gusting to 45 mph, satellite inclination of up to 15° and signal scintillation up to 2 dB.	Normally better than 5% of the receive beamwidth in winds of 30 mph gusting to 45 mph, satellite inclination of up to 15° and signal scintillation up to 2 dB.	Normally better than 5% of the receive beamwidth in winds of 30 mph gusting to 45 mph, satellite inclination of up to 15° and signal scintillation up to 2 dB.
<b>User Interface</b>	Dual 5" Color Touch Screens	Dual 5" Color Touch Screens	Dual 5" Color Touch Screen	Large 15" Color Touch Screen	Large 15" Color Touch Screen
<b>Remote Web Access</b>	Yes	Yes	Yes	Yes	Yes

1. The monopulse option provides high performance and new life to existing antennas at an economical price point.  
 2. AC Vector drives easily replace standard AC motors for improved performance and dynamic speed range.



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	C BAND	X BAND	Ku BAND	DBS BAND	Ka Band
<b>3.7 RX</b>	<b>830A</b>		<b>830A</b>		
3.8	830A/930A/ 940A/950A	830A/930A/ 940A/950A	830A/930A/ 940A/950A	830A/930A/ 940A/950A	940A/950A
<b>4.6 RX</b>	<b>830A</b>		<b>830A</b>		
4.8	830A/930A/ 940A/950A	830A/930A/ 940A/950A	830A/930A/ 940A/950A	940A/950A	940A/950A optical
6.3	830A/930A/ 940A/950A	830A/930A/ 940A/950A	940A/950A	940A/950A	940A/950A optical
7.3	830A/930A/ 940A/950A	830A/930A/ 940A/950A	940A/950A optical	940A/950A optical	940A/950A optical
9.0	830A/930A/ 940A/950A	940A/950A	940A/950A optical	940A/950A optical	940A/950A optical
11.1	940A/950A	940A/950A optical	940A/950A optical	940A/950A optical	970/980/990
13.1	940A/950A	940A/950A optical	940A/950A optical	940A/950A optical	970/980/990
16.4	940A/950A	940A/950A optical	970/980/990	970/980/990	970/980/990
18.3	940A/950A	940A/950A optical	970/980/990	970/980/990	970/980/990
21.0	940A/950A optical	940A/950A optical	970/980/990	970/980/990	970/980/990

ANTENNA SIZE (m)



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