



GlobalTop Technology Inc.

Company Profile

"Your Need is Our Mission"



GlobalTop

GlobalTop Technology Inc.



GlobalTop designs & manufactures:

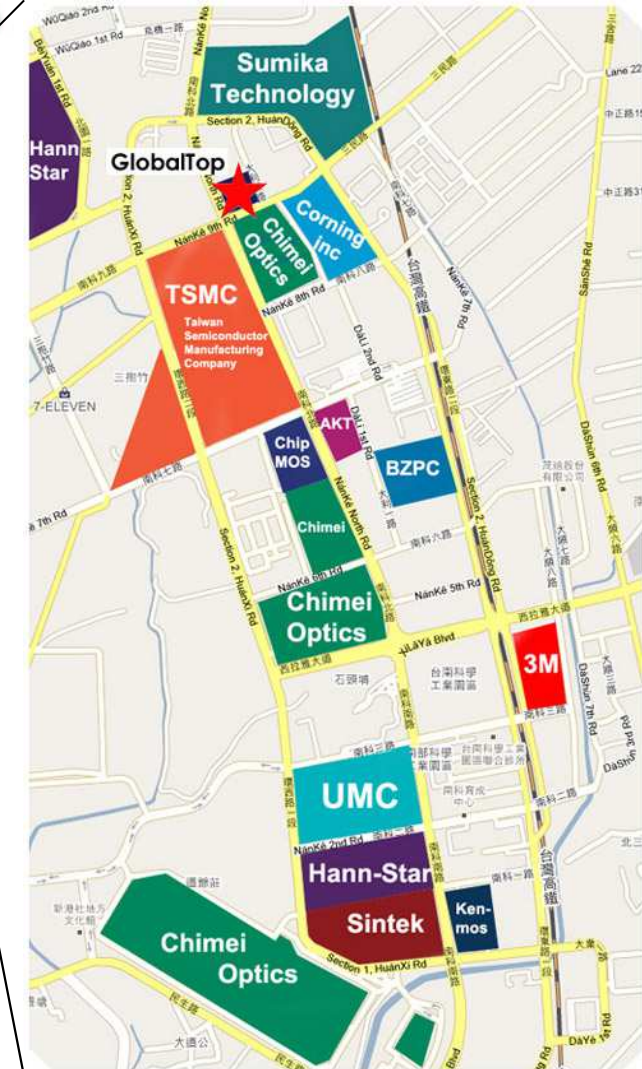
- Versatile OEM/ODM premier-quality GPS modules



- Total Capital: NT\$ 250M (US\$ 8.33M)
- Over 70 employees
- Two locations in Taiwan including a new 4,500 square meter Manufacturing facility

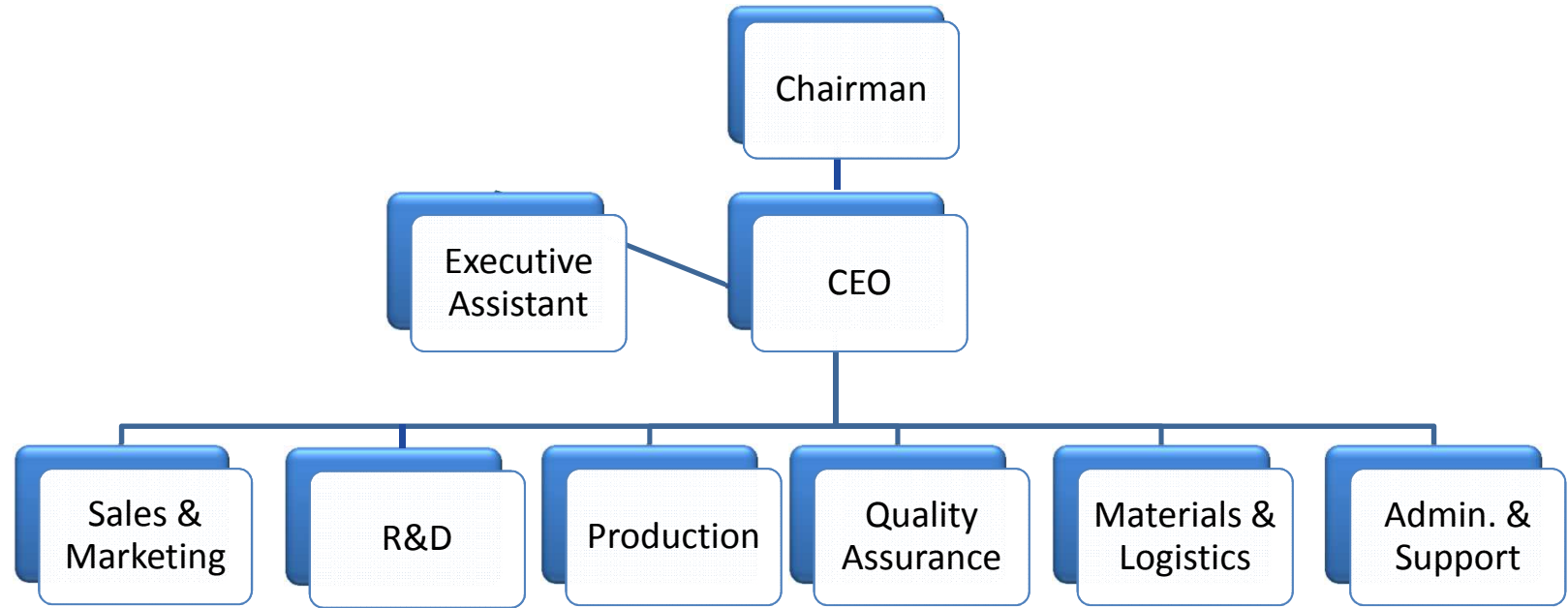
Company Information

- Over 70 employees:
 - R&D Teams (Software, Hardware and Production Engineering)
 - Sales & Marketing Team
 - Purchasing Team
 - Manufacturing Team
 - QA Team
 - Warehouse & Logistics Team
 - Finance & Human Resources Team
- Located in Taiwan's Southern Science Park in Tainan with a well-integrated supply chain administered to enforce strict regulatory requirements.
- New 4,500 square meter facility ensuring adequate manufacturing capacity for sudden high-volume rush orders.





Company Structure





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GlobalTop GPS Advantage



- Taiwan's #1 Quantity GPS module supplier
- High quality easy-to-use versatile modules:
 - Designed with quality components (TCXO, Flash)
 - Evaluation kit & extensive documentation
 - Standardized firmware with customization
- Comprehensive design support and service
- Complete range of manufacturing services
- Production with tight Quality Control and speedy Logistics

GNSS Modules List

Type	Model	Chipset	Size (mm)	Sensitivity		Power	
				Acquisition (dBm)	Tracking (dBm)	Acquisition (mA)	Tracking (mA)
Standalone	Gmm-g3	MT3333	11.5*13*2.1	-148	-165	35	29
	SL3C	MT3339	11.5*13*2.1	-148	-165	25	20
	Gmm-u2p	MT3339	9*12.7*2.1	-148	-165	19	15
	Gmm-u1	MT3329	13*10*2.1	-148	-165	48	37
	SL2B	MT3329	13.1*15.9*2.2	-146	-165	34	27
	Gmm-u5j	MT3329	22.4*17*2.2	-148	-165	33	26
	Gmm-u5LP	MT3329	22.4*17*2.2	-148	-165	30	24
Antenna	Gms-g9	MT3333	19.5*19.5*7.5	-148	-165	35	29
	PA6C	MT3339	16*16*6.2	-148	-165	25	20
	PA6H	MT3339	16*16*4.7	-148	-165	25	20
	PA6B	MT3329	16*16*6	-148	-165	48	37
	PA6E	MT3329	16*16*6	-148	-165	48	37
	Gms-u5LP	MT3329	22.4*17*6.4	-148	-165	33	26
	Chip Antenna	Gms-u6b	MT3339	16*16*2.1	-148	-165	25
Gms-g6a		MT3333	16*16*2.1	-148	-165	35	29

GPS Modules Series:

GPS Standalone Modules [Gmm Series / SL Series]:

- Very small form factor utilizing an external antenna
- Suitable for experienced system designers
- Multi-GNSS engine for combined GPS/GLONASS

GPS Antenna Modules [Gms Series / PA Series]:

- Integrated passive antenna
- Easy-to-use design
- Embedded GPS/GLONASS antenna

GPS/GLONASS Chip Antenna Modules [Gms Series] :

- Miniature size module with embedded GNSS chip antenna



GPS/GLONASS Standalone
Modules: **Gmm-g3**

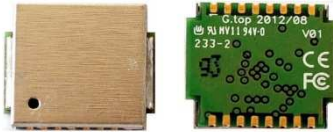


GPS Antenna Modules: **PA6H**

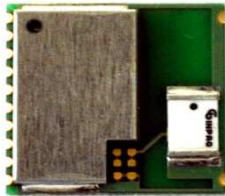


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GPS Module Product Series



GNSS Standalone Modules: Gmm- g3



GNSS chip antenna Modules: Gms- g6a



GNSS Antenna Modules: Gms- g9

GNSS Modules Feature Groups:

MT3333 Series

Advanced features:

- Synchronously receiving dual system GPS+GLONASS enhances performance even in poor working conditions.
- Dual system modules bring double power performance.
- EPO (Extended Prediction Orbit) Data Service
World leading technology supports 7/14 days orbit prediction
Utilizes occasional download from EPO™ server
- EASY™ (Embedded Assisted System)
Supported by the 1Hz update rate and VBACKUP function
Up to 3 days extension for single received ephemeris
- AlwaysLocate™ Intelligent Algorithm
Always provides immediate accurate location with extremely low power consumption (GPS receiver does not need to be fully powered-up)
- LOCUS
Innate Logger Solution

Availability:

GPS Standalone Modules:

- Gmm-g3

GPS chip antenna Modules:

- Gms-g6a

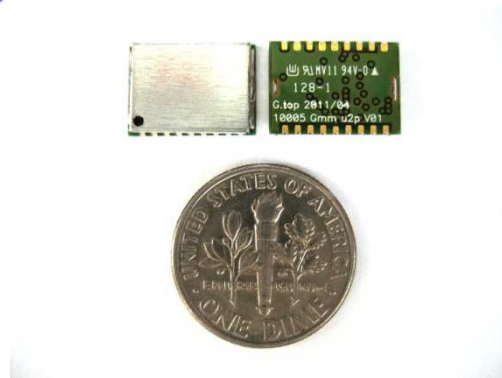
GPS Antenna Modules:

- Gms-g9

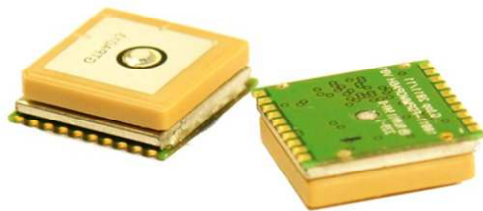


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GPS Module Product Series



GPS Standalone Modules: Gmm-u2p



GPS Antenna Modules: PA6H

GPS Modules Feature Groups:

MT3339 Series

Advanced features:

- Ultra Low Power Consumption
- Multi-tone Active Interference Canceller
Provides effective elimination of narrow-band interference and jamming
- EPO (Extended Prediction Orbit) Data Service
World leading technology supports 7/14 days orbit prediction
Utilizes occasional download from EPO™ server
- EASY™ (Embedded Assisted System)
Supported by the 1Hz update rate and VBACKUP function
Up to 3 days extension for single received ephemeris
- AlwaysLocate™ Intelligent Algorithm
Always provides immediate accurate location with extremely low power consumption (GPS receiver does not need to be fully powered-up)
- LOCUS
Innate Logger Solution

Availability:

GPS Standalone Modules:

- FGPMOSL3C
- Gmm-u2p

GPS Antenna Modules:

- FGPMOPA6C
- FGPMOPA6H (lower overall profile)

GPS Module Product Series



GPS Antenna Modules: Gms-u5LP



GPS Standalone Modules: Gmm-u5LP

GPS Modules Feature Groups:

u5 Series

Great cost savings in a 22.4 x 17mm form factor

- Gms-u5LP
With embedded antenna for production without fine-tuning
- Gmm-u5j
With revolutionary Anti-JACK technology. This feature detects nearby GPS jammers and notifies the host system or alarm/security devices via protocol (S/W output) or voltage level (H/W output).
- Gmm-u5LP
With Advisor feature: smart antenna status detection & reporting

Availability:

GPS Standalone Modules:

- Gmm-u5 LP
- Gmm-u5J

GPS Antenna Modules:

- GmS-u5 LP



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GPS Firmware Customization

Versatility in the GPS module's firmware is a key integral part of GlobalTop's successful product lineup.
(More can be found on GlobalTop's website www.gtop-tech.com under Products / Software Services)

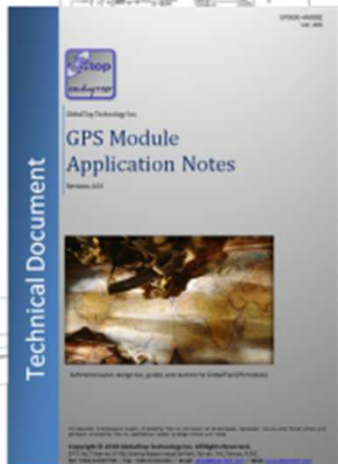
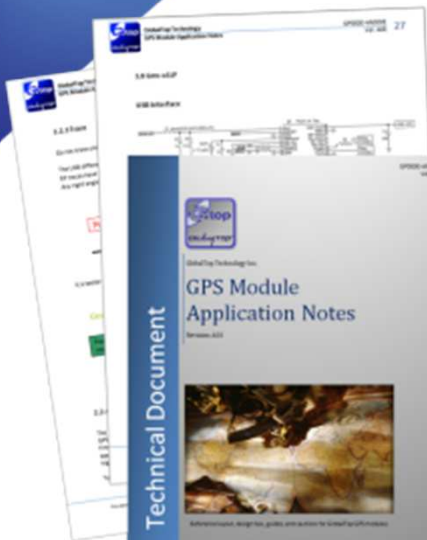
The graphic features a central image of a Mediatek MT3329 GPS chip. Surrounding the chip are eight service categories, each with a title and a brief description. The GlobalTop logo is in the top left corner of the graphic, and the title 'GlobalTop Firmware Customization Services' is at the top center.

- AGPS**
fast position fix with preloaded ephemeris
- BINARY MODE**
outputs position in binary format for increase efficiency
- PERIODIC MODE**
saves battery by powering off unused components
- DISTANCE CALCULATION**
calculates line of sight distance between receiver and other points of interest
- TIMING MODE**
advanced 1 PPS control for synchronization equipments
- DATA LOGGER SOLUTION**
turns GPS receiver into data logger with additional flash memory
- 10 HZ UPDATE**
fast refresh rate for high speed applications
- LAST POSITION RETENTION**
outputs last known position coordinates after losing GPS satellite fix
- ONE SENTENCE**
decreases calculation load on processor by simplifying output NMEA sentences

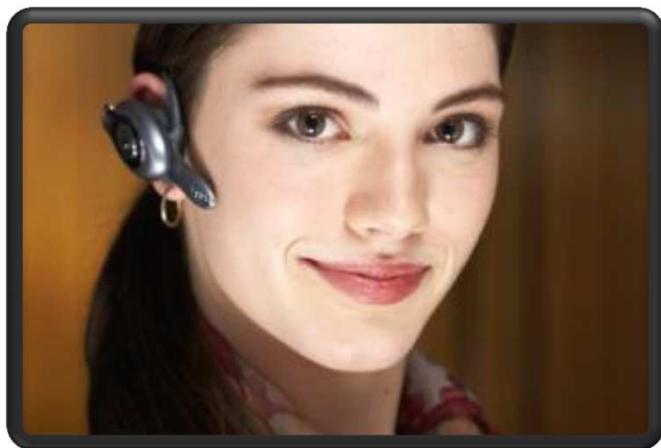


GlobalTop

Design Support & Documentation



- **Comprehensive Documents and Software**
 - Datasheets & Application Notes
 - Design guides, tips and cautions
 - Reference Schematics
 - PMTK Command Documents
 - Mini GPS Tools, AGPS Tools, Data Logger Tools
- **Before & After Sales Technical Service**
 - Quick response to questions (less than a day)
 - Customer design / schematic review
- **Direct Support from IC Chipset Supplier MTK**
 - GlobalTop is an MTK Alpha Site
 - Close interaction with MTK for features implementation and problem-solving



GlobalTop follows a strict work flow utilizing advanced management tools to ensure correct orders ship to customers on time, every time.



Customer Relationship Management

- Fast, Responsive Customer Service
- Dedicated staff for problem solving



Firmware Manufacturing Control

- Hundreds of possible firmware combinations
- Ensures the correct firmware is written onto your module



Quality Control

- Product management certified to ISO9001 (2009) / TL9000 standard
- Quality Inspections follow Standard Military Sampling Procedures (MIL-STD-105E)

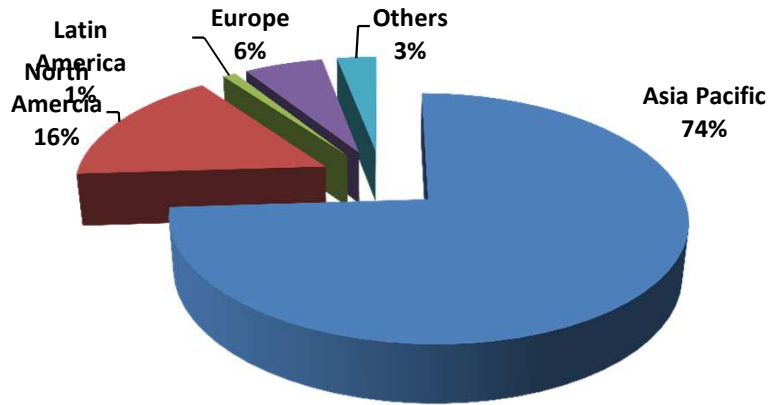




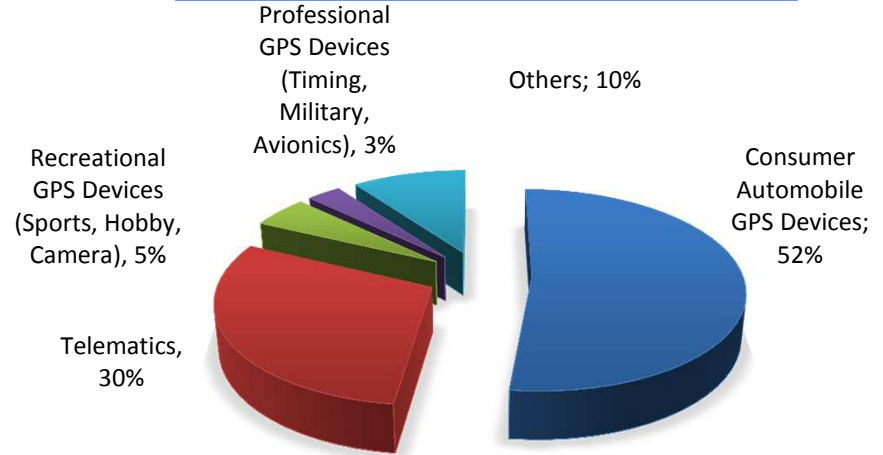
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By the Numbers: 2012 Sales

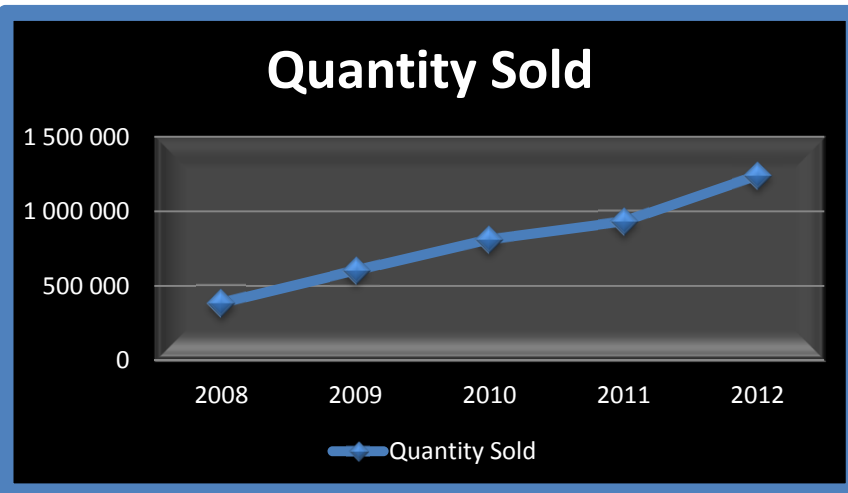
Quantity Sold by Regions (2012)



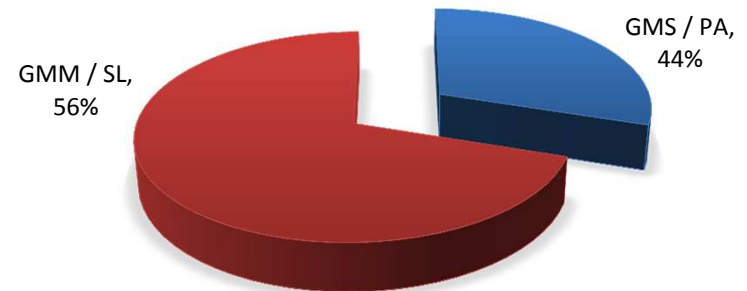
Module Applications (2012)



Quantity Sold by Year (All Products)



Type of Modules Sold (2012)



**More than 1.25 Million
GPS products sold in 2012!**



GlobalTOP

GlobalTop Manufacturing

GlobalTop Manufacturing



Factory facility at the Science-based Industrial Park in Tainan (Southern Taiwan)



GlobalTOP

Factory Qualifications & Product Certifications

- ISO 9001
- UL, TUV, FCC, CE, RoHS, etc.
- OEM Customer Quality Audits

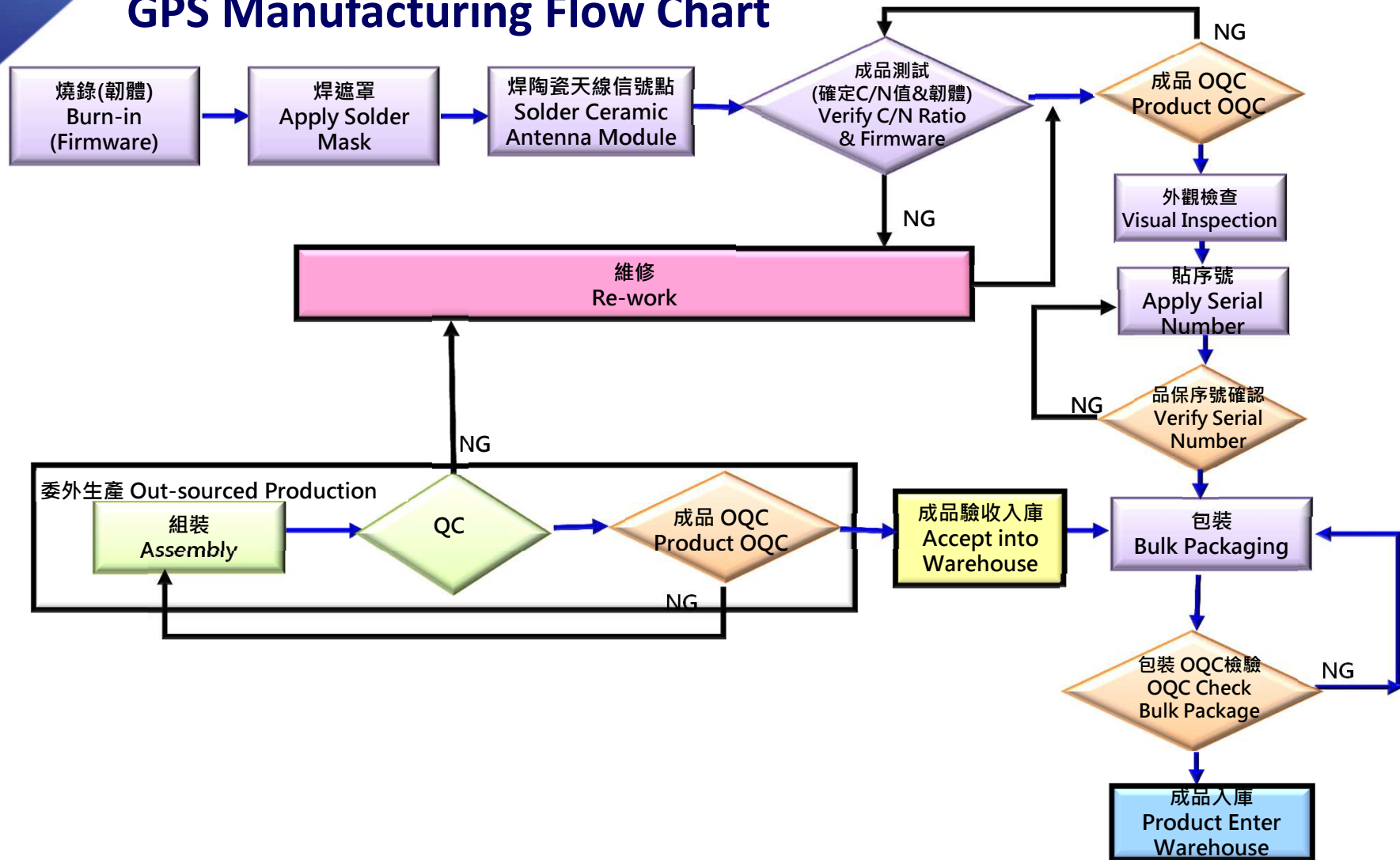


Quality Assurance

- **Incoming (Supplier) Quality Control**
- **In-Process Quality Check**
 - 100% inspection (each unit is completely checked)**
- **Incoming & Final Quality Check**
 - MIL-STD-105E AQL 0.65%, Normal Inspection, Level 2**
- **Outgoing Quality Control**



GPS Manufacturing Flow Chart





GlobalTop

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Thank you!