

LB-187-20-C-SF Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain SMA Female

Standard Gain Horn Antenna Operating From 3.95GHz to 5.85GHz With a Nominal 20dB Gain With SMA Female Connector



### Product Information

|     |                |
|-----|----------------|
| SKU | LB-187-20-C-SF |
|-----|----------------|

### Description

Standard Gain Horn Antenna LB-187-20-C-SF, operating from 3.95 to 5.85GHz with a nominal 20dB gain and low VSWR 1.25:1 with SMA Female connector output. The model LB-187-20-C-SF has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 50W continuously and 3000W peak power. Constructed of lightweight corrosion-resistant aluminum, the antenna will provide years of trouble-free indoor and outdoor service. This standard gain horn antenna is linearly polarized and ideally suited for EMI testing, direction finding, surveillance, antenna gain and pattern measurements and other applications.

### Technical Specification

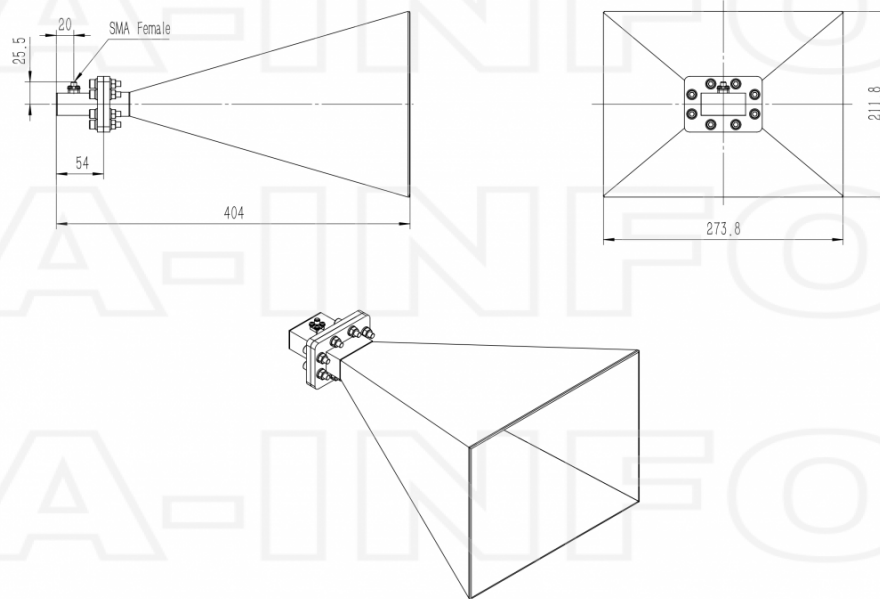
| Electrical Specification           |             | Interface                |                                         |
|------------------------------------|-------------|--------------------------|-----------------------------------------|
| Frequency, Min (GHz)               | 3.95        | Output Type              | Coaxial                                 |
| Frequency, Max (GHz)               | 5.85        | Connector                | SMA                                     |
| Waveguide Type                     | Rectangular | Connector Gender         | Female                                  |
| Waveguide Size EIA WR              | WR187       | Mechanical Specification |                                         |
| Gain, Typ (dBi)                    | 20          | Figure                   | C Type                                  |
| Polarization                       | Linear      | Body Material            | Al                                      |
| 3dB Beamwidth, E-Plane, Typ (Deg.) | 16          | Finish                   | Chemical Conversion Coating, Gray Paint |
| 3dB Beamwidth, H-Plane, Typ (Deg.) | 18          | Size, W (mm)             | 273.8                                   |
| Cross Pol. Isolation, Typ (dB)     | 30          | Size, H (mm)             | 211.8                                   |
| VSWR, Typ                          | 1.25:1      | Size, L (mm)             | 404                                     |
| Impedance, (Ohm)                   | 50          | Weight, (kg)             | 1.56                                    |
| Power Handling, CW, (W)            | 50          |                          |                                         |
| Power Handling, Peak, (W)          | 3000        |                          |                                         |

## Additional Information

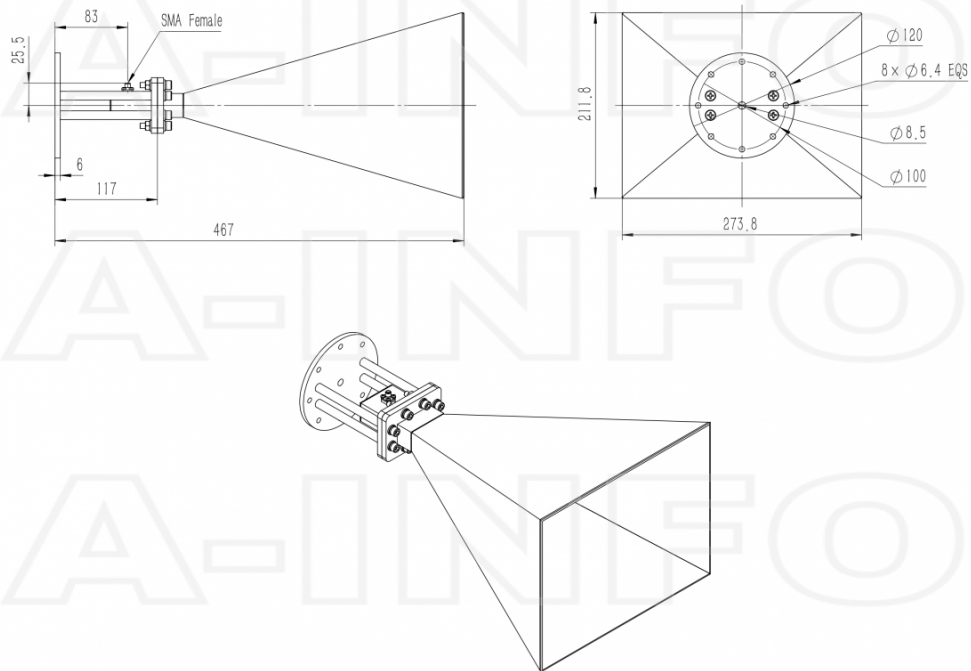
|             |                                         |              |                                                                                                                                 |
|-------------|-----------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|
| Application | General Purpose Indoor & Outdoor, Fixed | Solution for | Gain Reference<br>Antenna Measurement<br>Reflector Feed<br>Far-field Measurement<br>System Intergration<br>Material Measurement |
|-------------|-----------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|

## Outline Drawing

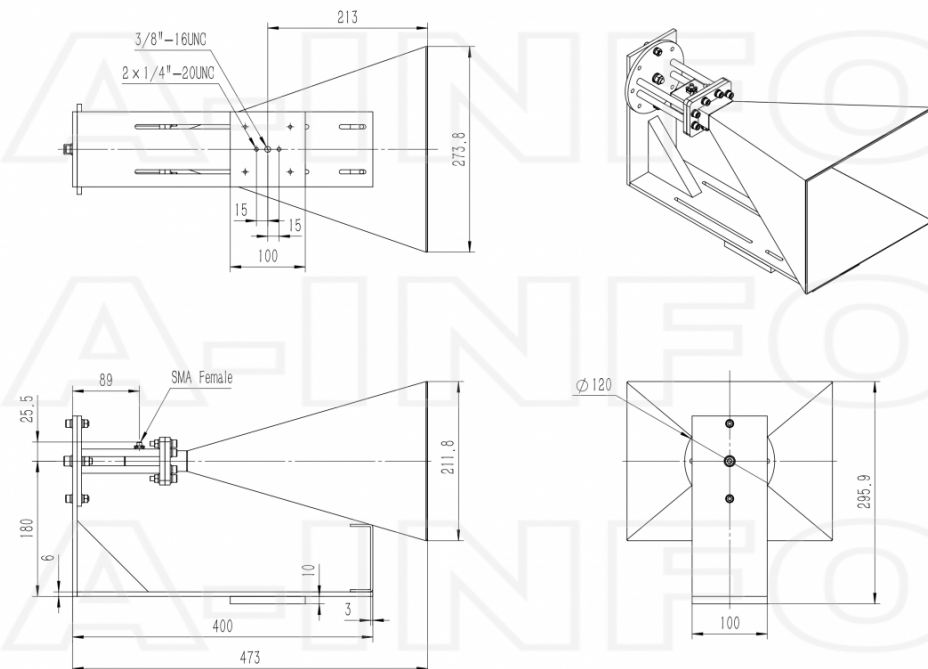
SMA Female Output (P/N: LB-187-20-C-SF)



### SMA Female Output with Round Mounting Bracket (Option, P/N: LB-187-10-C-MB)

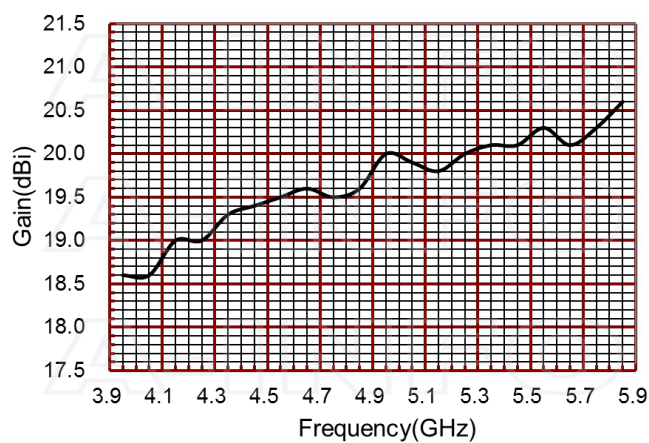


### SMA Female Output with L Type Mounting Bracket (Option, P/N: LB-187-20-C-MBL)

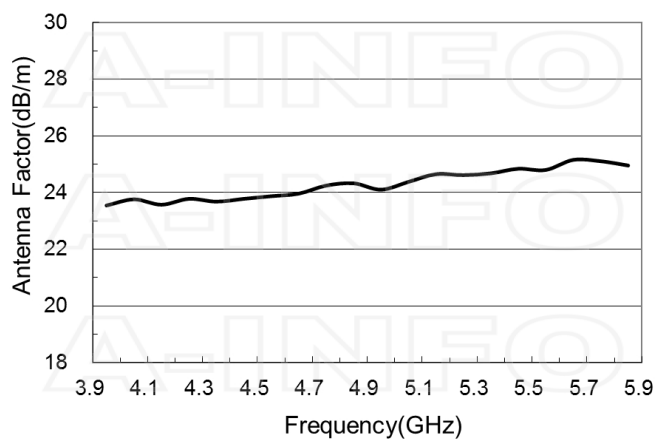


## Typical Test Results

### Gain



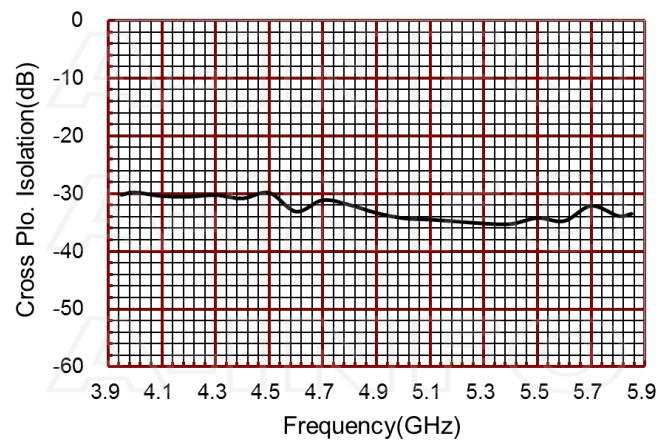
### Antenna Factor



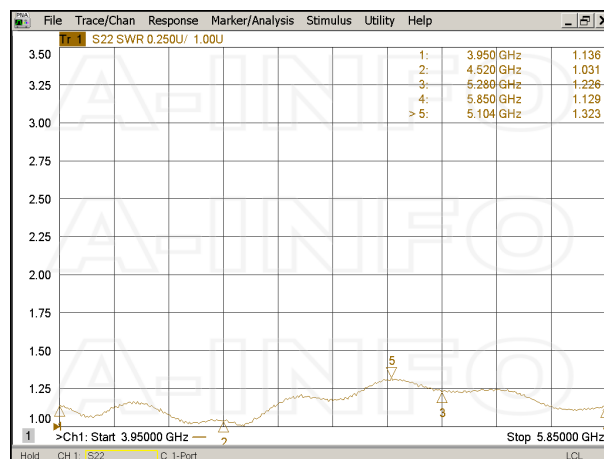
### Antenna Factor (Table)

| Frequency(GHz) | Gain(dBi) | Antenna Factor(dB/m) | Frequency(GHz) | Gain(dBi) | Antenna Factor(dB/m) |
|----------------|-----------|----------------------|----------------|-----------|----------------------|
| 3.95           | 18.60     | 23.54                | 4.95           | 20.00     | 24.10                |
| 4.05           | 18.60     | 23.76                | 5.05           | 19.90     | 24.38                |
| 4.15           | 19.00     | 23.57                | 5.15           | 19.80     | 24.65                |
| 4.25           | 19.00     | 23.78                | 5.25           | 20.00     | 24.61                |
| 4.35           | 19.30     | 23.68                | 5.35           | 20.10     | 24.68                |
| 4.45           | 19.40     | 23.78                | 5.45           | 20.10     | 24.84                |
| 4.55           | 19.50     | 23.87                | 5.55           | 20.30     | 24.80                |
| 4.65           | 19.60     | 23.96                | 5.65           | 20.10     | 25.15                |
| 4.75           | 19.50     | 24.24                | 5.75           | 20.30     | 25.10                |
| 4.85           | 19.60     | 24.32                | 5.85           | 20.60     | 24.95                |

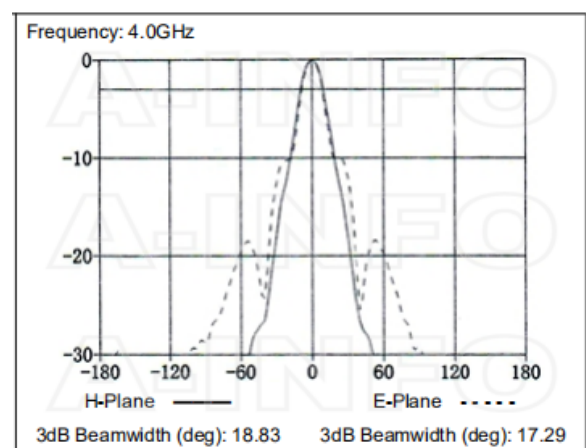
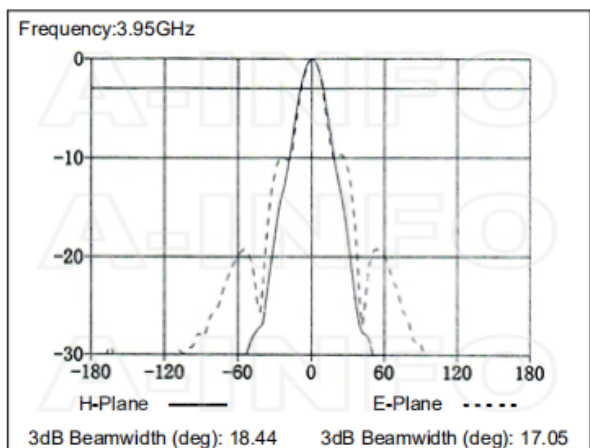
## Cross Polarization Isolation

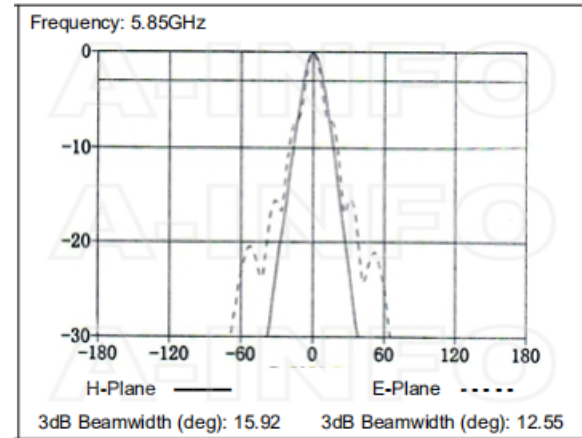
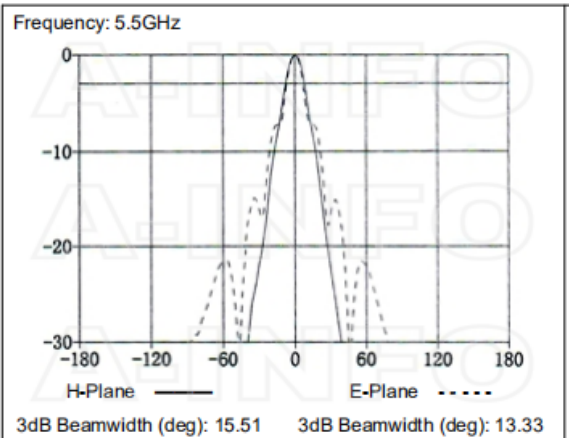
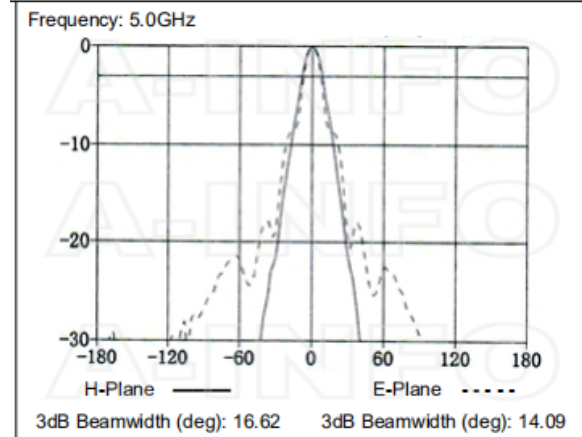
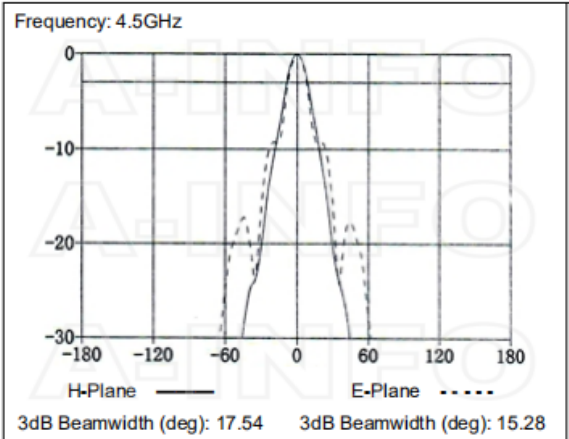


## VSWR



## Pattern





### Related Products



LB-187-10-C-MB Round Type  
Mounting Bracket



LB-187-20-C-MBL L type  
mounting bracket



LB-187-10-C-MA Stinger Type  
Mounting Bracket



Tripod\_50Kg Al Alloy Tripod



Carrying Case\_LB-187-20-C AI Alloy Carrying Case



M6x30 Hex\_Pack WR284-WR159 Flange Assembly Pack



SM-SM-A050-1000 Flexible Cable Assembly 1000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-1500 Flexible Cable Assembly 1500mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-2000 Flexible Cable Assembly 2000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-3000 Flexible Cable Assembly 3000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-5000 Flexible Cable Assembly 5000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-10000 Flexible Cable Assembly 10000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-200 Flexible Cable Assembly 200mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-300 Flexible Cable Assembly 300mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-500 Flexible Cable Assembly 500mm DC- 26.5GHz SMA Male to SMA Male



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SM-SM-A080-10000 Flexible Cable Assembly 10000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-20000 Flexible Cable Assembly 20000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A100-100 Flexible Cable Assembly 100mm DC- 18GHz SMA Male to SMA Male



SM-SM-A100-200 Flexible Cable Assembly 200mm DC- 18GHz SMA Male to SMA Male



SM-SM-A100-300 Flexible Cable Assembly 300mm DC- 18GHz SMA Male to SMA Male



SM-SM-A100-500 Flexible Cable Assembly 500mm DC- 18GHz SMA Male to SMA Male



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SM-SM-A100-5000 Flexible Cable Assembly 5000mm DC- 18GHz SMA Male to SMA Male



SM-SM-A100-10000 Flexible Cable Assembly 10000mm DC- 18GHz SMA Male to SMA Male

### Similar Products



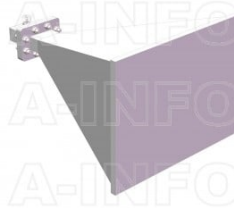
LB-187-20-A Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain Rectangular Waveguide Interface



LB-187-20-ASPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain Rectangular Waveguide Interface



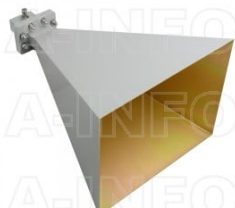
LB-187-20-C-NF Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain N Type Female



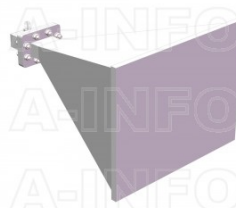
LB-187-20-C-NFSPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain N Type Female



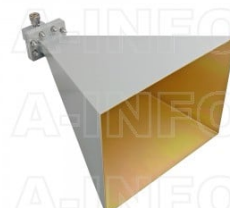
LB-187-20-C-SFPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain SMA Female



LB-187-20-C-TF Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain TNC Female



LB-187-20-C-TFSPPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain TNC Female



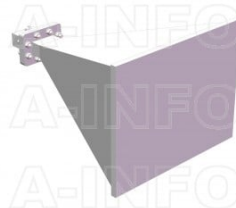
LB-187-20-C-7 Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain 7mm



LB-187-20-C-7SPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain 7mm



LB-187-20-C-3.5F Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain 3.5mm Female



LB-187-20-C-3.5FSPO Standard Gain Horn Antenna 3.95-5.85GHz 20dB Gain 3.5mm Female

### About this Datasheet

|                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                                                           |
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| <p>● <b>Product Information</b><br/> Product Link:<br/> <a href="https://www.ainfoinc.com/lb-187-20-c-sf-standard-gain-horn-antenna-3-95-5-85-ghz-20db-gain-sma-female">https://www.ainfoinc.com/lb-187-20-c-sf-standard-gain-horn-antenna-3-95-5-85-ghz-20db-gain-sma-female</a><br/> Data subject to change without notice.<br/> © A-INFO INC. 2023. All Rights Reserved</p> | <p>● <b>Contact Us</b><br/> Address:dd<br/> 60 Tesla, Irvine, CA 92618, USA<br/><br/> Website:<br/> <a href="http://www.ainfoinc.com">www.ainfoinc.com</a><br/><br/> Email:<br/> <a href="mailto:sales@ainfoinc.com">sales@ainfoinc.com</a></p> | <p>● <b>Phone &amp; Fax</b><br/> Phone:<br/> +1-949-639-9688<br/> +1-949-639-9608<br/><br/> Fax:<br/> +1-949-639-9670</p> |
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