![ABRACON LLC — The Power of Linking Together]

Engineering/Process Change Notice

ECN/PCN No.: 3449

<table>
<tr><td colspan="4" align="center">For Manufacturer</td></tr>
<tr>
<td>Product Description:
GPS/Beidou/Glonass/Galileo/QZSS External Antenna</td>
<td colspan="2">Abracon Part Number / Part Series:
AEAGMK148060-S1575</td>
<td>☒Series
☐Part Number</td>
</tr>
<tr>
<td>Affected Revision:
A</td>
<td>New Revision:
B</td>
<td align="center">Application</td>
<td>☐Safety
☒Non-Safety</td>
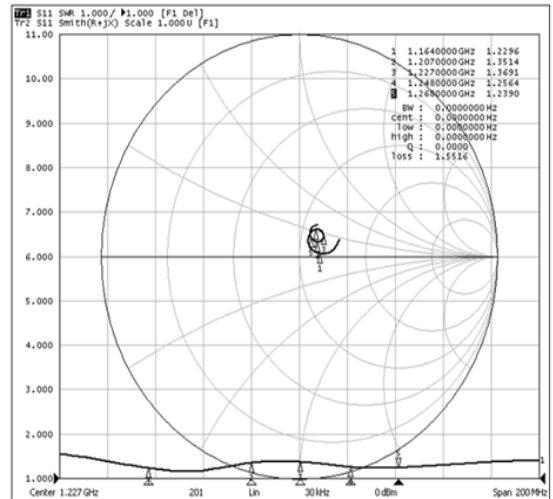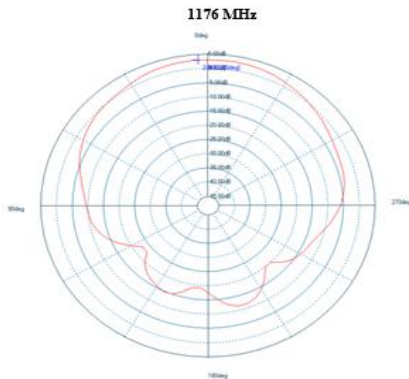</tr>
<tr>
<td colspan="4">Prior to Change:

1.   N/A</td>
</tr>
<tr>
<td colspan="4">After Change:

1.   Gain and Axial Ratio values for specific frequencies
2.   Radiation patterns for specific frequencies from table
3.   Added return loss characteristic for 1.227 GHZ

4.0   Radiation Patterns
</td>
</tr>
<tr>
<td colspan="4">Cause/Reason for Change:
Radiation patterns/gain & axial ratio values for specific frequencies, return loss characteristic addition</td>
</tr>
</table>

Frequency, MHz	Gain, dBic	Axial Ratio
1176	2.3	1.0
1207	3.5	1.6
1227	3.5	1.8
1246	2.5	1.6
1268	1.5	1.0
1561	4.0	0.7
1575	4.5	0.8
1602	4.4	0.7

1176 MHz

Change Plan	Effective Date: 08/05/2019	Additional Remarks: N/A	
Change Declaration: Added Radiation Pattern images for specific frequencies along with gain and axial ratio values for the specified frequencies, added return loss characteristic for 1.227 GHZ			
Issued Date: 7/30/2019	**Issued By:** Daniel Montoya		**Issued Department:** Engineering
Approval: Syed Raza Engineering VP	**Approval:** Reuben Quintanilla Quality Manager		**Approval:** Ying Huang Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable): N/A		Alternate Part Number / Part Series: N/A	
Additional Approval: N/A	**Additional Approval:** N/A		**Additional Approval:** N/A

Customer Approval (If Applicable)

Qualification Status:

☐ Approved

☐ Not accepted

Note: It is considered approved if there is no feedback from customer 1 month after ECN/PCN is released

Customer Part Number:		Customer Project:	
Company Name:	**Company Representative:**		**Representative Signature:**
Customer Remarks:			