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| --- | --- |
| Name | Security Level |
| BELLSING® JOYLIVE Series BMBA Receiver | Open |
| Version | A Total of 9 Pages |
| REV A |

BVA321XX4002

Product Data Sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Prepared by: | Sam.Chen |  | Date: | 2020-08-28 |

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| Auditor: |  |  | Date: |  |
| Approver: |  |  | Date: |  |



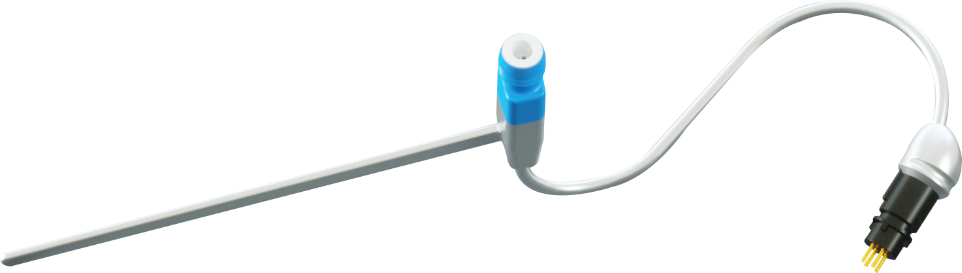
Shenzhen Bellsing Acoustic Tech. Co., Ltd.

**Product Specification**

Product number : See below List

|  |  |
| --- | --- |
| Model Number | Description |

|  |  |
| --- | --- |
| BVA321L04002 | Generic RIC 4 pin，Size 0L,Tube,Left Blue |
| BVA321R04002 | Generic RIC 4 pin，Size 0R,Tube,Right Red |
| BVA321L14002 | Generic RIC 4 pin，Size 1L,Tube,Left Blue |
| BVA321R14002 | Generic RIC 4 pin，Size 1R,Tube,Right Red |
| BVA321L24002 | Generic RIC 4 pin，Size 2L,Tube,Left Blue |
| BVA321R24002 | Generic RIC 4 pin，Size 2R,Tube,Right Red |
| BVA321L34002 | Generic RIC 4 pin，Size 3L,Tube,Left Blue |
| BVA321R34002 | Generic RIC 4 pin，Size 3R,Tube,Right Red |



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**1. Description and Application**

1.1 Description

RIC Module for headset or hearing aid units

1.2 Application

Consumer electronics or medical equipment

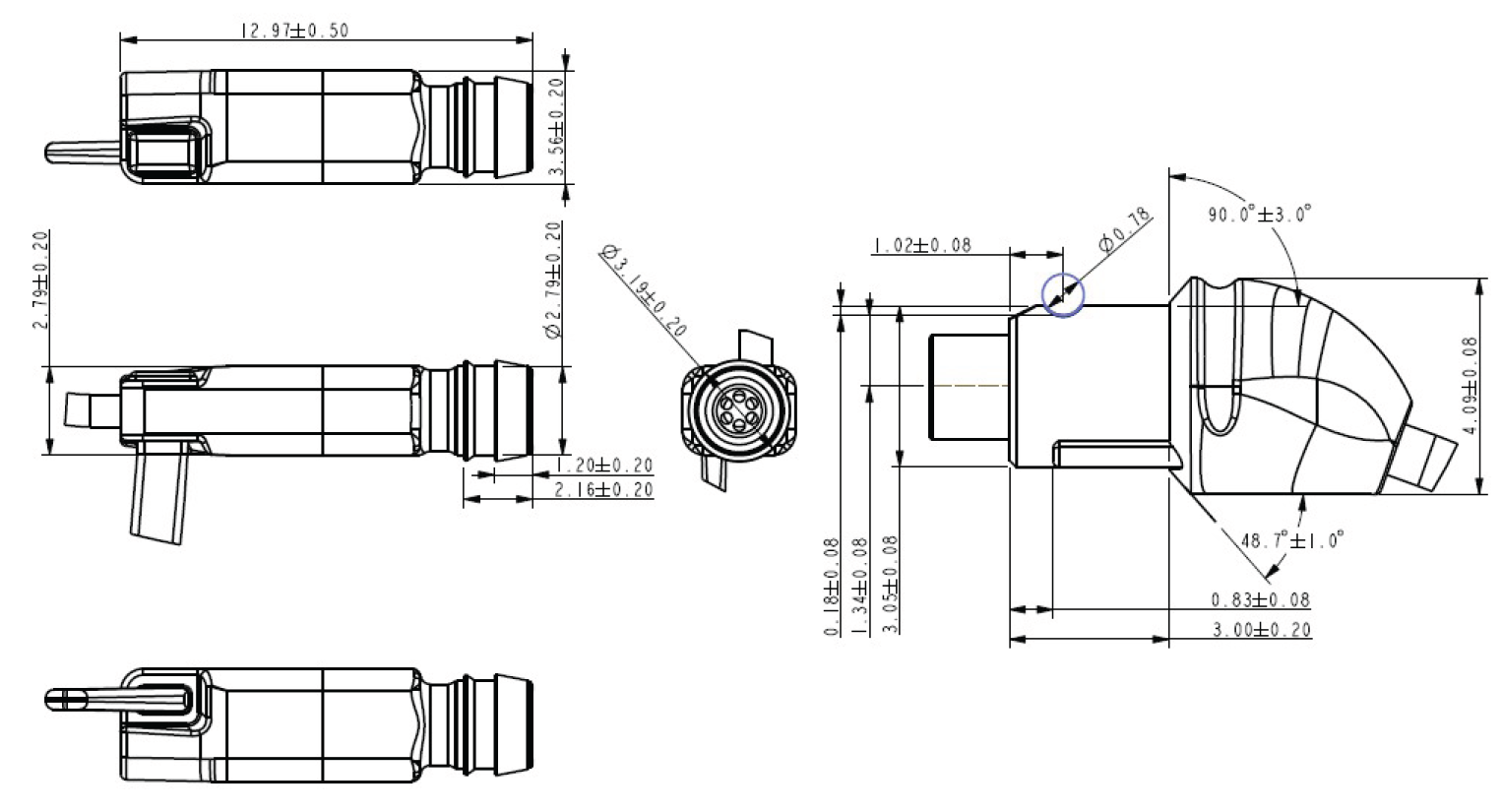
**2. Mechanical Layout and Dimensions**

2.1 Dimension

2.1.1 Mian Dimension

|  |
| --- |
| 4 PIN MODUL |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Assembly Number | Description | Color | Contact Assignment | | | |  |
| 1 | 2 | 3 | 4 |
| BVA321L04002 | Size 0-BL，(Small Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA321R04002 | Size 0-BL，(Small Right) | Red | - | - | POS(+) | NEG(-) |
| BVA321L14002 | Size 1-BL，(Small Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA321R14002 | Size 1-BL，(Small Right) | Red | - | - | POS(+) | NEG(-) |
| BVA321L24002 | Size 2-BL，(Small Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA321R24002 | Size 2-BL，(Small Right) | Red | - | - | POS(+) | NEG(-) |
| BVA321L34002 | Size 3-BL，(Small Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA321R34002 | Size 3-BL，(Small Right) | Red | - | - | POS(+) | NEG(-) |

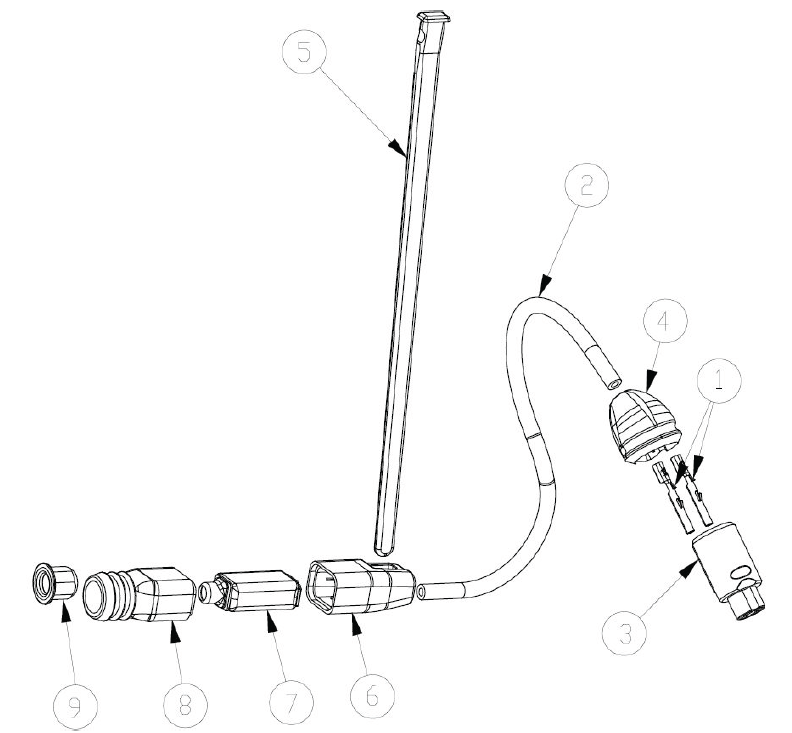


2.1.2 Size Dimension

|  |  |
| --- | --- |
|  |  |

|  |  |
| --- | --- |
|  |  |

2.2 Material List



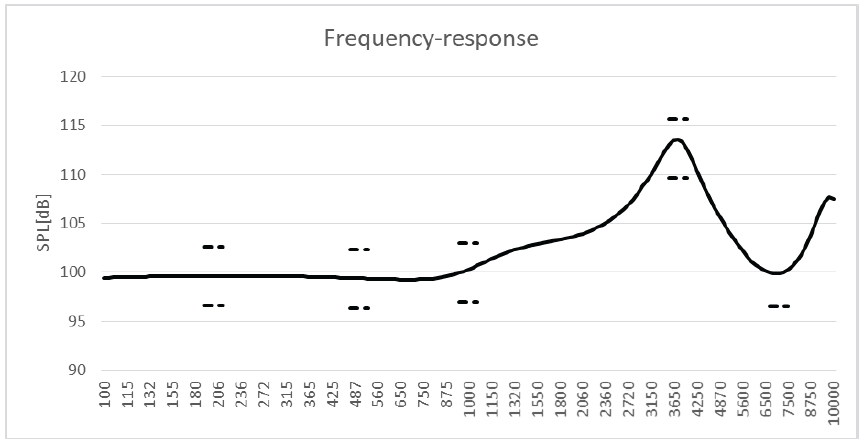
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item No. | | Description | | Quantity | | Material | |
| 1 | | Contact tube | | 2 | | BuCu | |
| 2 | | Nylon11 tube, OD 1.0mm | | 1 | | Nylon11+ 2C Varnished wire | |
| 3 | | Connector housing front | | 1 | | PA66+30%GF | |
| 4 | | Connector housing rear | | 1 | | TR55 | |
| 5 | | Concha lock | | 1 | | TPE90A | |
| 6 | | Receiver housing rear | | 1 | | TR55 | |
| 7 | | Receiver | | 1 | | BRC305C30000 | |
| 8 | | Receiver housing front | | 1 | | PA66+30%GF | |
| 9 | | No wax filter | | 1 | | PP | |

**3. Electrical and Acoustical Specifications**

3.1 Frequency response

Typical frequency response measured according to chapter 0 and 3.6

An undamped magnetic balanced armature receiver with an extended high frequency response.



|  |  |  |  |
| --- | --- | --- | --- |
| Test Item | | Nominal | Tolerance |
| Sensitivity(dB) | @200Hz | 99.6 | +/- 3.0 |
| @500Hz | 99.3 | +/- 3.0 |
| @1000Hz | 100.0 | +/- 3.0 |
| Peak1 | Frequency (Hz) | 3450-4050 | |
| SPL(dB) | 112.6 | +/- 3.0 |
| Valley | Frequency (Hz) | 6400-7400 | |
| SPL(dB) | 96.5min | |

3.2 Total Harmonic Distortion (THD)

Typical THD measured according to chapter 0 and 3.6

Total Harmonic Distortion

Device Will Not Exceed Total Harmonic Distortion Levels Listed Below.

|  |  |  |  |
| --- | --- | --- | --- |
| Test Item | | Nominal | Comments |
| THD(%) | @1/2 1st peak | <5.0 | AC drive  0.211 Vrms |
| @1/3 1st peak | <5.0 |

Electrical

|  |  |
| --- | --- |
| DC Resistance @20℃ | 100.0Ω+/-10% |
| Impedance @500Hz | 106.0Ω+/-10% |
| Impedance @1000Hz | 120.0Ω+/-10% |

3.3 Test Conditions

|  |  |  |  |
| --- | --- | --- | --- |
| Nominal Source Voltage | | 0.211 Vrms，0 mA DC BIAS | |
| Source Impedance | | ＜1 Ohm | |
| Tubing | | NONE | |
| Coupler Cavity | | 1.26cm³，Simulated IEC711 Coupler（IEC 60318-4） | |

Unless otherwise specified the range of atmospheric condition to complete Measurements and tests will follow 23±5℃ ambient temperature, 25~65% relative humidity

Operating Temperture: Sensitivity at 500Hz will not vary more than +1/-3dB from -17℃~63℃

Storage temperture: -40℃~63℃

Solder Type: SAC305

3.4 Acoustic Measured Parameters

3.4.1 Sensitivity

SPL is expressed in dB rel 20uPa.

Measurement set up and parameters according chapter 0.

This test is performed for 100% of products in the production line.

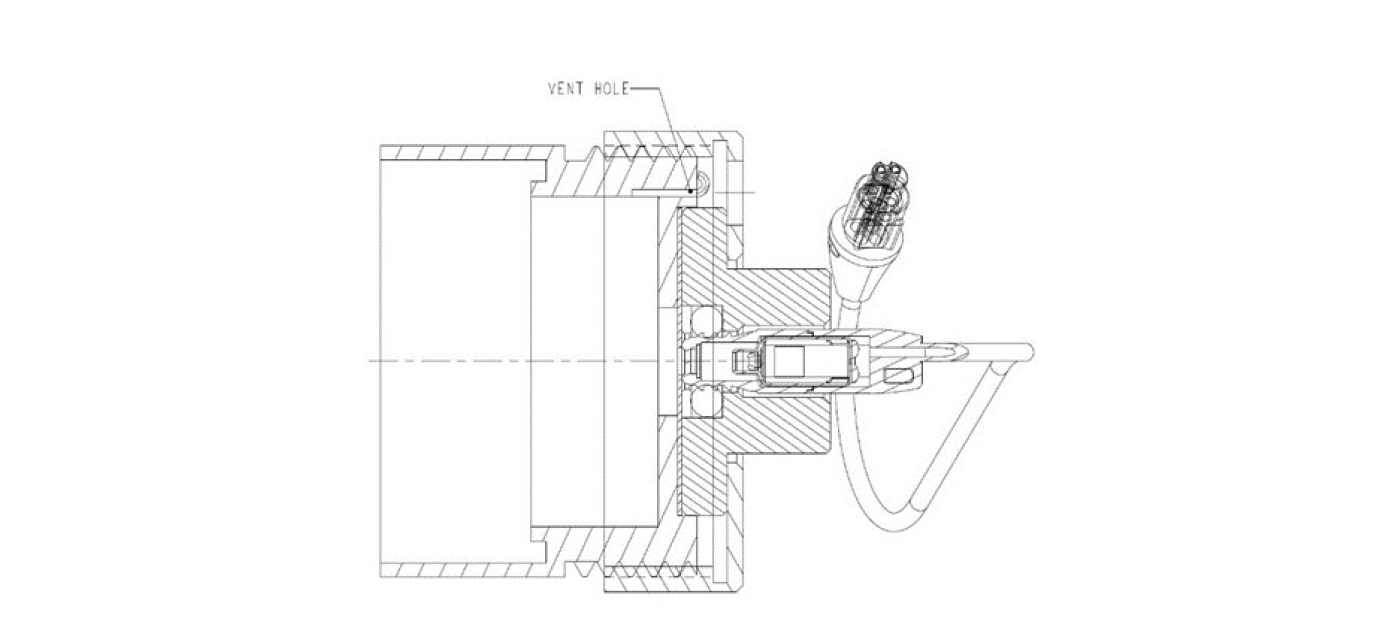
3.4.2 Frequency response

Frequency response is measured according test set up in chapter 0 data sheet and checked against the tolerance window defined in chapter 0. This Test is performed for 100% of products in the production line.

3.4.3 Total harmonic distortion (THD)

Is measured according IEC 60318-4 and test set up in chapter 0. This test is performed for 100% of products in the production line.

3.5 Measurement setup



Measurement signal:

Logarithmic sine sweep, 1.5s, 20Hz~20 kHz

No RF chokes included in the measurement!

All acoustic and electric measurements at 23±2°C

3.6 Measurement adapter

