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

BVA530XX4002

Product Data Sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Prepared by: | Sam.Chen |  | Date: | 2020-10-09 |

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



Shenzhen Bellsing Acoustic Tech. Co., Ltd.

**Product Specification**

Product number : See below List

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

|  |  |
| --- | --- |
| BVA530L04002 | Generic RIC 4 pin，Size 0L,Tube,Left Blue |
| BVA530R04002 | Generic RIC 4 pin，Size 0R,Tube,Right Red |
| BVA530L14002 | Generic RIC 4 pin，Size 1L,Tube,Left Blue |
| BVA530R14002 | Generic RIC 4 pin，Size 1R,Tube,Right Red |
| BVA530L24002 | Generic RIC 4 pin，Size 2L,Tube,Left Blue |
| BVA530R24002 | Generic RIC 4 pin，Size 2R,Tube,Right Red |
| BVA530L34002 | Generic RIC 4 pin，Size 3L,Tube,Left Blue |
| BVA530R34002 | Generic RIC 4 pin，Size 3R,Tube,Right Red |



Content

1. Description and Application…………………………………………………………………………………………4

1.1. Description…………………………………………………………………………………………………………….4

1.2. Application…………………………………………………………………………………………………………….4

2. Mechanical Layout and Dimensions…………………………………………………………………………….4

2.1. Main Dimension………………………………………………………………………………………………….4-5

2.2. Material List……………………………………………………………………………………………………………6

3. Electrical and Acoustical Specifications…………………………………………………………………………7

3.1. Frequency response……………………………………………………………………………………………….7

3.2. Total Harmonic Distortion (THD)…………………………………………………………………………..7

3.3. Test Conditions………………………………………………………………………………………………………8

3.4. Acoustic Measured Parameters………………………………………………………………………………8

3.5. Measurement setup………………………………………………………………………………………………..9

3.6. Measurement adapter……………………………………………………………………………………………9

4. Change History…………………………………………………………………………………………………………10

**1. Description and Application**

1.1 Description

RIC Module for headset or hearing aid units

1.2 Application

Consumer electronics or medical equipment

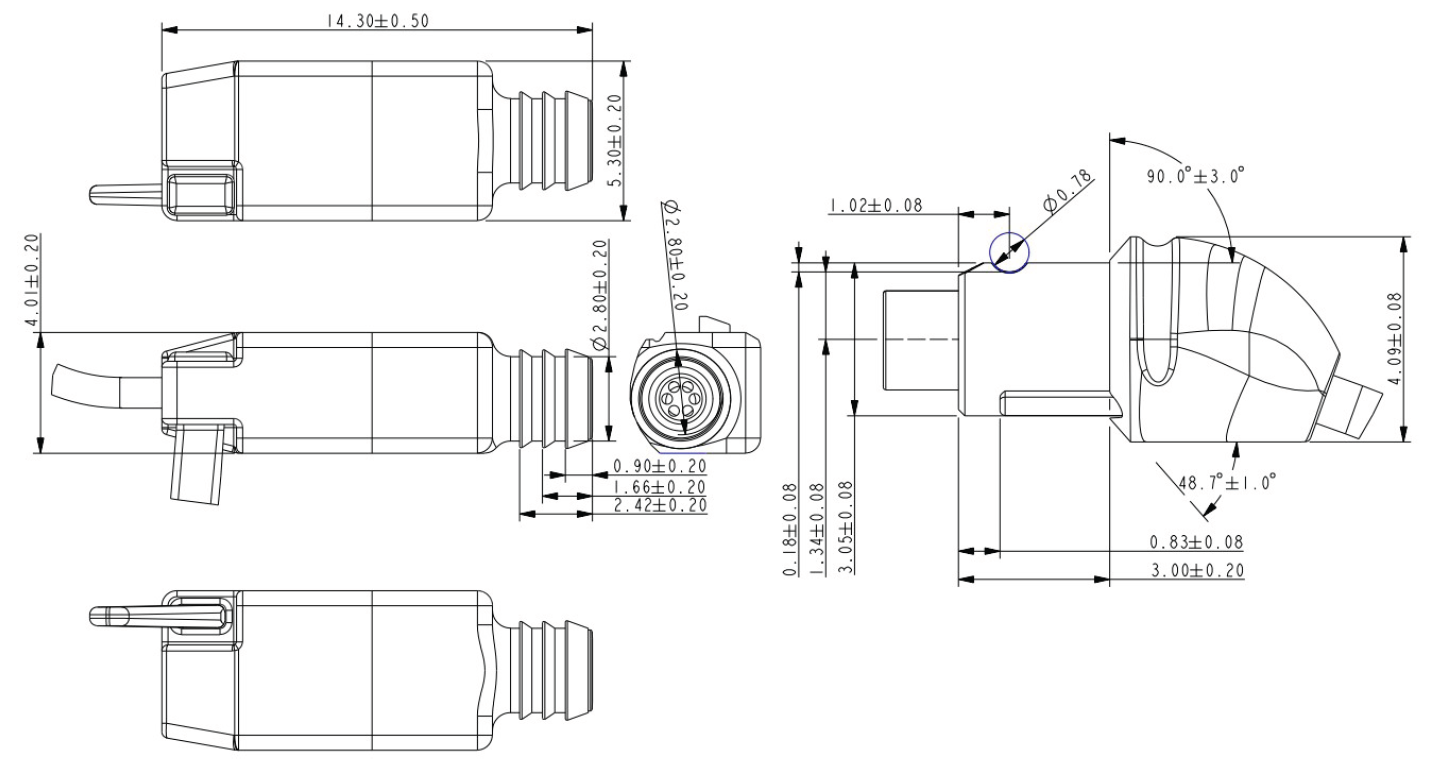
**2. Mechanical Layout and Dimensions**

2.1 Dimension

2.1.1 Mian Dimension

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Assembly Number | Description | Color | Contact Assignment | | | |  |
| 1 | 2 | 3 | 4 |
| BVA530L04002 | Size 0-BL，(Small Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA530R04002 | Size 0-BL，(Small Right) | Red | - | - | POS(+) | NEG(-) |
| BVA530L14002 | Size 1-BL，(Medium Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA530R14002 | Size 1-BL，(Medium Right) | Red | - | - | POS(+) | NEG(-) |
| BVA530L24002 | Size 2-BL，(Large Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA530R24002 | Size 2-BL，(Large Right) | Red | - | - | POS(+) | NEG(-) |
| BVA530L34002 | Size 3-BL，(X-Large Leet) | Blue | - | - | POS(+) | NEG(-) |
| BVA530R34002 | Size 3-BL，(X-Large Right) | Red | - | - | POS(+) | NEG(-) |

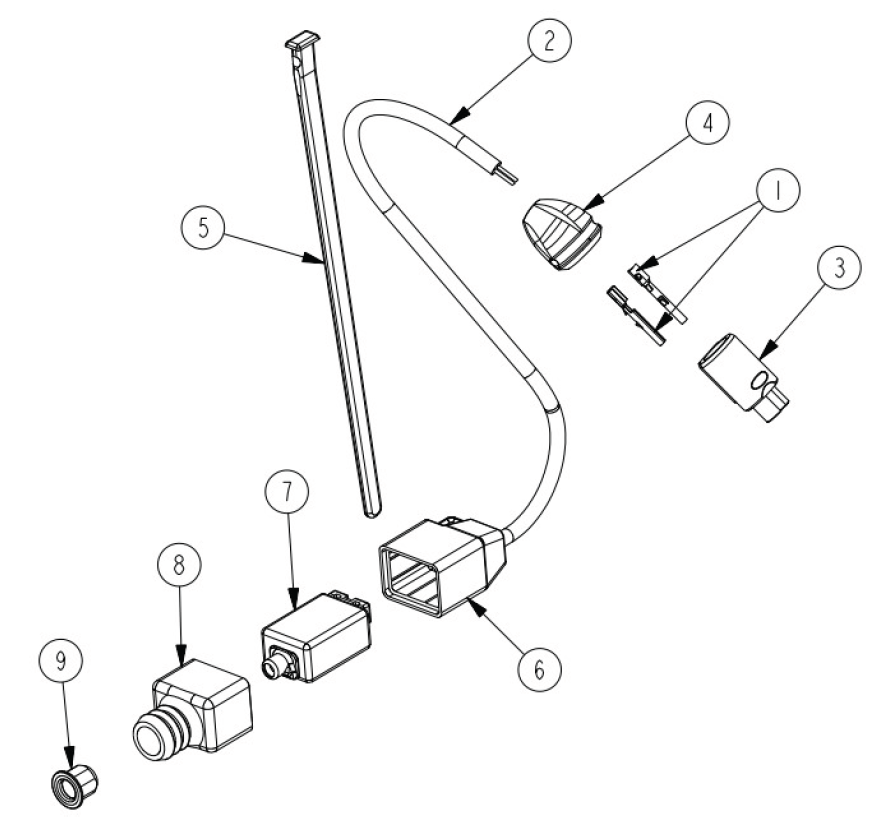


2.1.2 Size Dimension

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

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

2.2 Material List



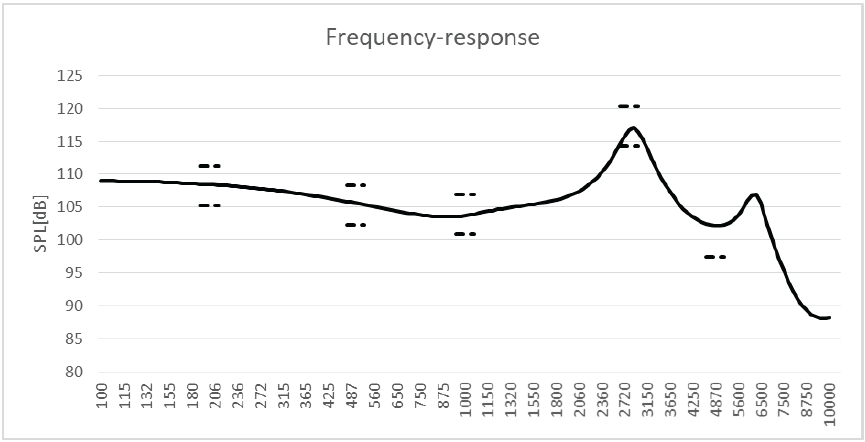
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Item No. | | Description | | Quantity | | Material | |
| 1 | | Contact tube | | 2 | | BuCu | |
| 2 | | Nylon11 tube, OD 1.0mm | | 1 | | Nylon11+ 2C Varnished wire | |
| 3 | | Connector housing front | | 1 | | PA66+30%GF | |
| 4 | | Connector housing rear | | 1 | | TR55 | |
| 5 | | Concha lock | | 1 | | TPE90A | |
| 6 | | Receiver housing rear | | 1 | | TR55 | |
| 7 | | Receiver | | 1 | | BRC540H27156 | |
| 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 | 108.2 | +/- 3.0 |
| @500Hz | 105.3 | +/- 3.0 |
| @1000Hz | 103.9 | +/- 3.0 |
| Peak1 | Frequency (Hz) | 2580-3150 | |
| SPL(dB) | 117.3 | +/- 3.0 |
| Valley | Frequency (Hz) | 4370-5370 | |
| SPL(dB) | 97.5 min | |

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  0.220 Vrms |
| @1/3 1st peak | <5.0 |

Electrical

|  |  |
| --- | --- |
| DC Resistance @20℃ | 127.0Ω+/-10% |
| Impedance @500Hz | 187.0Ω+/-10% |
| Impedance @1000Hz | 307.5Ω+/-10% |

3.3 Test Conditions

|  |  |  |  |
| --- | --- | --- | --- |
| Nominal Source Voltage | | 0.220 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.

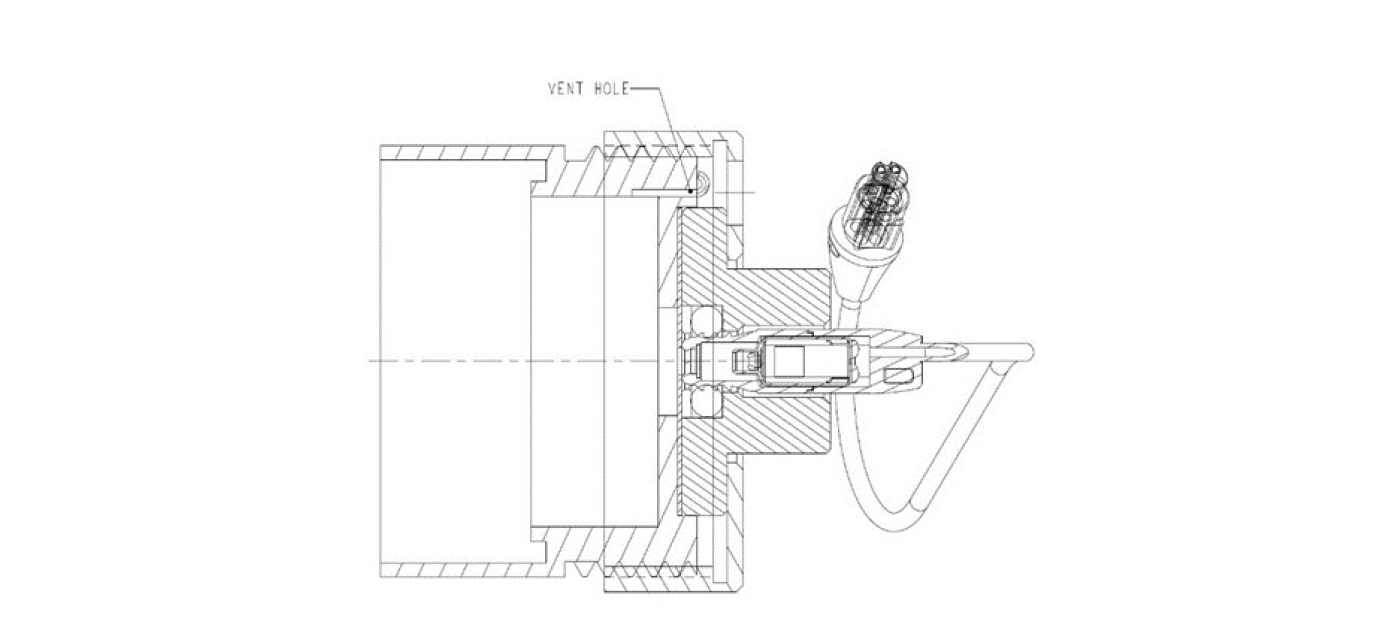
3.4.2 Frequency response

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

