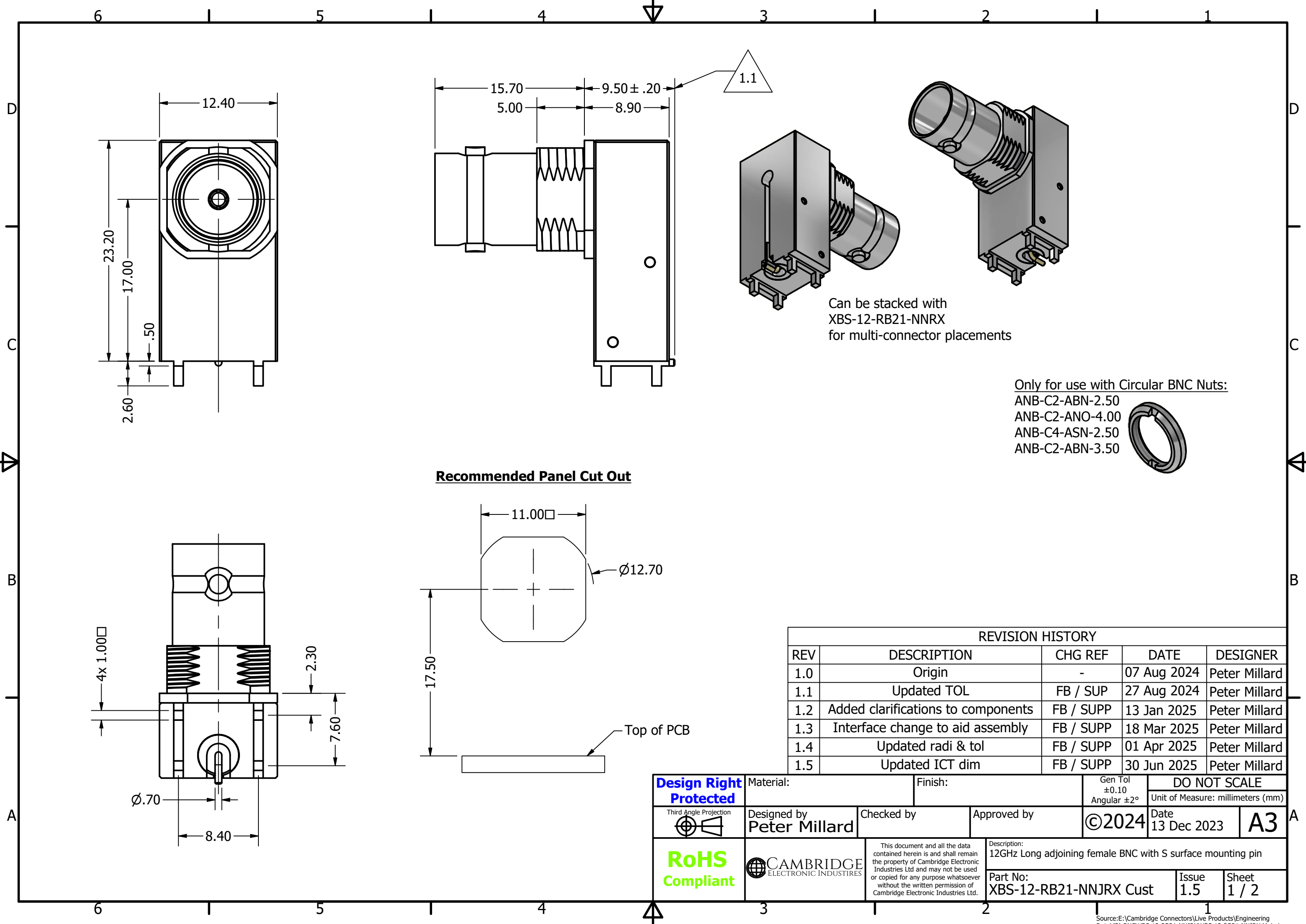




| REVISION HISTORY |                                    |           |             |               |
|------------------|------------------------------------|-----------|-------------|---------------|
| REV              | DESCRIPTION                        | CHG REF   | DATE        | DESIGNER      |
| 1.0              | Origin                             | -         | 07 Aug 2024 | Peter Millard |
| 1.1              | Updated TOL                        | FB / SUP  | 27 Aug 2024 | Peter Millard |
| 1.2              | Added clarifications to components | FB / SUPP | 13 Jan 2025 | Peter Millard |
| 1.3              | Interface change to aid assembly   | FB / SUPP | 18 Mar 2025 | Peter Millard |
| 1.4              | Updated radi & tol                 | FB / SUPP | 01 Apr 2025 | Peter Millard |
| 1.5              | Updated ICT dim                    | FB / SUPP | 30 Jun 2025 | Peter Millard |

|                        |                                                                                                                                                                                                                                                         |  |                                    |  |                                 |  |                              |  |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--|---------------------------------|--|------------------------------|--|
| Design Right Protected | Material:                                                                                                                                                                                                                                               |  | Finish:                            |  | Gen Tol<br>±0.10<br>Angular ±2° |  | DO NOT SCALE                 |  |
|                        | Designed by<br>Peter Millard                                                                                                                                                                                                                            |  | Checked by                         |  | Approved by                     |  | ©2024<br>Date<br>13 Dec 2023 |  |
| RoHS Compliant         | Description:<br>12GHz Long adjoining female BNC with S surface mounting pin                                                                                                                                                                             |  | Part No:<br>XBS-12-RB21-NNJRX Cust |  | Issue<br>1.5                    |  | Sheet<br>1 / 2               |  |
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Electrical:

|                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| Impedance                       | 75 Ohms                                             |
| Freq Range                      | 0-12.0 GHz                                          |
| Working Voltage                 | 500 Vrms                                            |
| Dielectric withstanding voltage | 1500 Vrms                                           |
| Reflection Factor (VSWR)        | 1.05 MAX 0.0-6.0 GHz<br>1.64 MAX 6.1-12.0 GHz       |
| Contact Resistance              | Center Contact 1.5 m Ohm<br>Outer Contact 1.0 m Ohm |
| Insulation Resistance           | >5000 Meg Ohm                                       |

Materials:

|             |                       |
|-------------|-----------------------|
| Center Pin  | PhosBronze / 10μ" Au  |
| Metal Parts | Brass / 70μ" Ni Plate |
| Insulators  | PTFE                  |

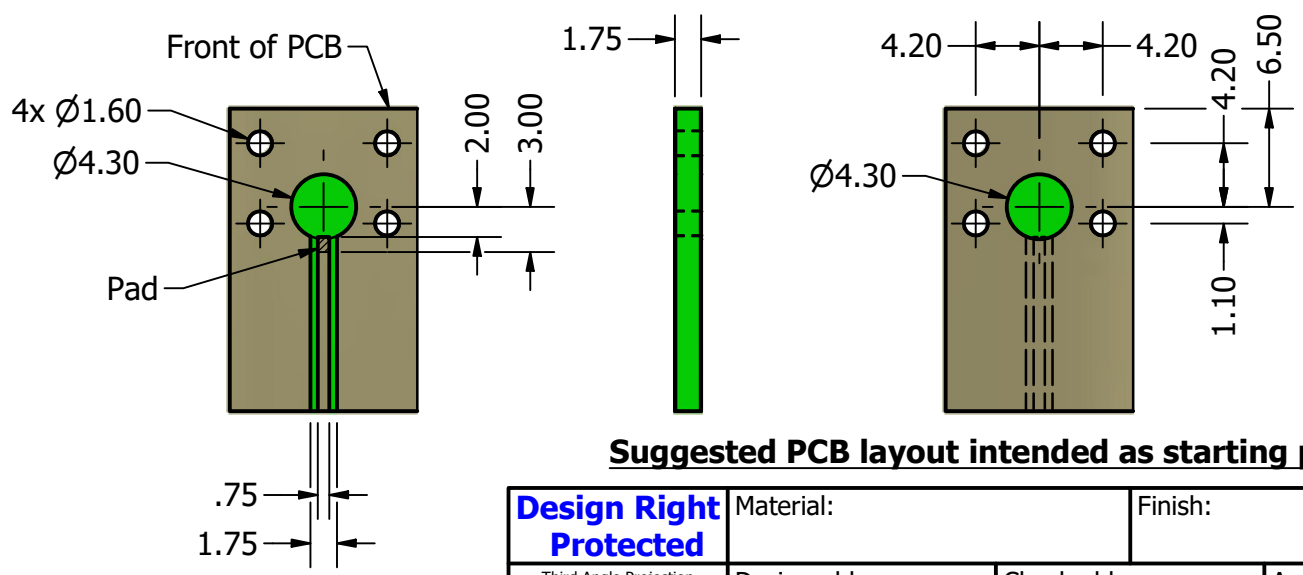
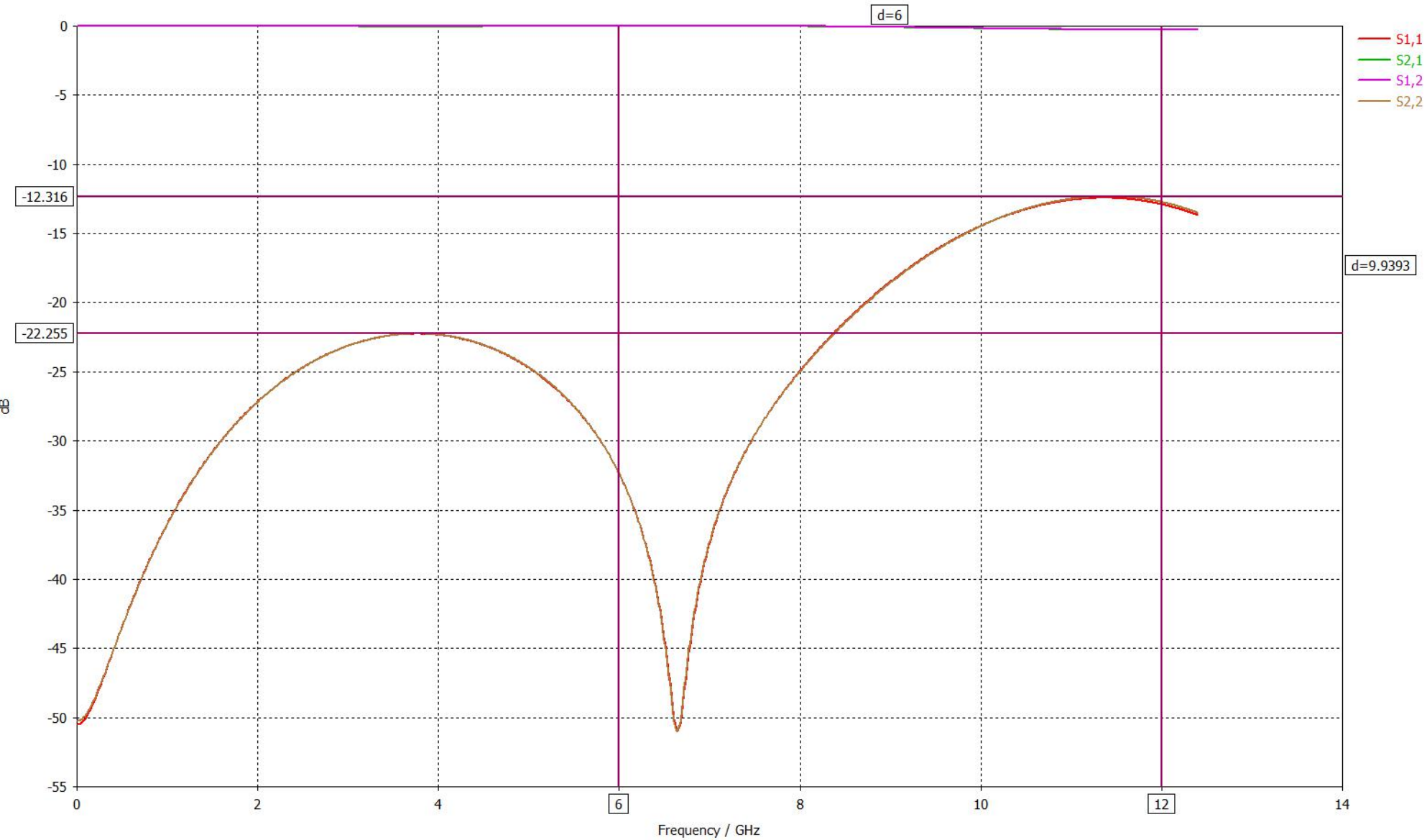
Enviromental:

|               |              |
|---------------|--------------|
| Temp Ranges   | -65 to +85°C |
| Mating Cycles | 250          |

Processing:

|             |          |
|-------------|----------|
| Peak Reflow | 260° MAX |
|-------------|----------|

Connector ONLY



Suggested PCB layout intended as starting point for design iteration

|                                                                                                                 |                                                                                       |                                                                                                                                                                                                                                                         |         |                                                                             |                                 |                                   |                |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------|---------------------------------|-----------------------------------|----------------|
| Design Right<br>Protected                                                                                       | Material:                                                                             |                                                                                                                                                                                                                                                         | Finish: |                                                                             | Gen Tol<br>±0.10<br>Angular ±2° | DO NOT SCALE                      |                |
|                                                                                                                 |                                                                                       |                                                                                                                                                                                                                                                         |         |                                                                             |                                 | Unit of Measure: millimeters (mm) |                |
| Third Angle Projection<br> | Designed by<br>Peter Millard                                                          | Checked by                                                                                                                                                                                                                                              |         | Approved by                                                                 | ©2024                           | Date<br>13 Dec 2023               | A3             |
| RoHS<br>Compliant                                                                                               |  | This document and all the data contained herein is and shall remain the property of Cambridge Electronic Industries Ltd and may not be used or copied for any purpose whatsoever without the written permission of Cambridge Electronic Industries Ltd. |         | Description:<br>12GHz Long adjoining female BNC with S surface mounting pin |                                 |                                   |                |
|                                                                                                                 |                                                                                       |                                                                                                                                                                                                                                                         |         | Part No:<br>XBS-12-RB21-NNJRX Cust                                          |                                 | Issue<br>1.5                      | Sheet<br>2 / 2 |