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| Traveler Title | ER5C Cavity Field Probe Feedthrough Inspection Traveler |
| Traveler Abstract | This traveler covers the necessary steps to perform incoming inspection on ER5C (C20, C50, C75) cavity field probe feedthroughs. Incoming inspection includes visual, dimensional, leak test (in a separate traveler), and cold shock (in a separate traveler). |
| Traveler ID | ER5C-INSP-FPFT |
| Traveler Revision  | R1 |
| Traveler Author | L. Zhao |
| Traveler Date | 31-Jan-25 |
| NCR Informative Emails | areilly,overtonr,georged,mosby |
| NCR Dispositioners | lzhao,buttles,weaksmc,forehand |
| D3 Emails | lzhao,forehand,areilly,overtonr,buttles,weaksmc,georged,mosby |
| Approval Names | L. Zhao | G. DeKerlegand | J. Buttles | A. Reilly |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer 1 | Reviewer 2 | Project Representative |

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| References | List and Hyperlink all documents related to this traveler. This includes, but is not limited to: safety (THAs, SOPs, etc), drawings, procedures, and facility related documents. |
| [11151-0033\_Cavity pair assembly probe assembly\_RevA](https://misportal.jlab.org/jlabDocs/documents/versions/7275/download)  | [JL0170822 C75 CAVITY FIELD PROBE](https://misportal.jlab.org/jlabDocs/documents/versions/205675/download) | [CeramTec Drawing Q464641 RevA](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-295412/Q464641S.pdf) |  |  |

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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| Step No. | Instructions | Data Input |
| 1 | Visual inspectionEnter the field probe feedthrough serial number from the dropdown menu.Enter the inspector name and date.Visually inspect the feedthrough for:* Cleanliness – should be free of dust, oil, finger prints, or brazing irregularities;
* Sealing surface – should be smooth, free of scratches, burrs, or nicks;
* Insulator – should be free of cracks and excess of braze material;
* Conductor – thread on the center conductor should go all the way from the tip to near the base;
* Connector - make sure the SMA electrical connections have no damage and are not loose.

Provide comments and pictures if needed. Generate NCR if the part does not pass visual inspection. | [[FPFTSN]] <<FPFTSN>>[[VisualInspectionName]] <<SRF>>[[VisualInspectionTime]] <<TIMESTAMP>>[[PassVisual]] <<YESNO>>[[VisualInspectionComments]]<<COMMENT>>[[VisualPhoto]] <<FILEUPLOAD>> |
| 2 | Dimensional checksEnter inspector name and date.Check the following dimensions of feedthrough using CMM, appropriate gauges, or other designated tools.  | [[DimInspectionName]] <<SRF>>[[DimInspectionTime]] <<TIMESTAMP>> |
|  | Description | Specified Dimensions (unit in inches) |  |
|  | Collar seal surface to conductor tip | 0.33 ± 0.015 | [[Dim\_seal\_to\_tip]] <<FLOAT>> |
|  | Collar outer diameter | 0.620 +0.000/-0.002 | [[Dim\_collar\_OD]] <<FLOAT>> |
|  | Collar seal inner diameter | 0.437 ± 0.005 | [[Dim\_collar\_seal\_ID]] <<FLOAT>> |
|  | Collar thickness | 0.150 ± 0.015 | [[Dim\_collar\_thickness]] <<FLOAT>> |
|  | External length | 0.89 ± 0.03 | [[Dim\_external\_length]] <<FLOAT>> |
|  | Provide comments and pictures if any | [[DimPass]] <<YESNO>> [[DimInspectionComments]] <<COMMENT>>[[DimPhoto]] <<FILEUPLOAD>> |
| 3 | Cold shock of the feedthrough. Perform in the VTA – use traveler ER5C-VTA-FPFT-CSHK | [[ColdShockComp]] <<CHECKBOX>> |
| 4 | Leak check of the feedthroughPerform leak check use traveler ER5C-CMA-FPFT-LEAK | [[LeakCheckComp]] <<CHECKBOX>> |