

REV	E.R.	DESCRIPTION	DWN	CHK	ENGR	APPV	Date
A							

ER No.	REV.

DISTRIBUTION:

MATERIAL CONTROL

OFF-SITE

PRODUCTION MGR

SALES MGR

QC DEPT

OTHER

USED ON:

FILE NAME:
**69-XXX-
XX_Prod_Turnkey_Revu.doc
x**

	INITIAL	DATE
PREPARED		
CHECKED		
ENGINEER		
APPROVED		

Extron Electronics
1230 South Lewis Street
Anaheim, Ca 92805

TITLE:
SOP - Product Turnkey Review

PART NO.
69-XXX-XX

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Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

Procedure: SOP

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Procedure: SOP

1 INTRODUCTION

1.1 PURPOSE

Procedures for determining whether a product is ready for outsourcing to a contract manufacturer.

1.2 SCOPE

Extron finished products.

2 DEFINITIONS

PCR	Product Change Request
EOL	End of Life

3 REFERENCE DOCUMENTS

Document No.	Title
71-506-01B	Product Change Request Form



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4 PROCESS

Turnkey reviews are initiated by a request email containing a turnkey request form for each product being reviewed. The form is usually provided in Microsoft Word (.doc, .docx) format:








 Extron Electronics <small>RGB SYSTEMS, INC. INTERFACE PRODUCTS</small>		INTERNATIONAL OPERATIONS TURNKEY PROJECT REVIEW FORM		
Product: SMX HDMI	Issue Date: 12-3-2010	PE: Andy Feng		
Part #: see comments	Expected Return Date: 12-8-2010	Vendor: Winsson		
DEPARTMENTAL SIGNOFF				
CAD <input type="checkbox"/>	ENG <input checked="" type="checkbox"/>	ME <input type="checkbox"/>	PM <input type="checkbox"/>	
SE <input type="checkbox"/>	NPI <input type="checkbox"/>			
CATEGORY				
<input type="checkbox"/> PCB	<input type="checkbox"/> PCBA	<input type="checkbox"/> Sheet Metal	<input type="checkbox"/> Enclosure	
<input type="checkbox"/> Cable Assembly	<input type="checkbox"/> Floor Issues			
<input type="checkbox"/> MPI	<input type="checkbox"/> MTP	<input type="checkbox"/> FQC	<input checked="" type="checkbox"/> BOM	
<input checked="" type="checkbox"/> Engr. Task	<input type="checkbox"/> Ready to Transfer Overseas			
EVALUATION				
Part Number	Rev.	Evaluation		Comments
70-773-01	A3	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
70-773-05	A3	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
70-773-02	A4	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
70-773-03	A3	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
		<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
		<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
		<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved	
		<input type="checkbox"/> Available	<input type="checkbox"/> Not Available	Test Equipment in Extron China
Additional Comments: 70-773-01/05/02/03				
 Evaluator (Print Clearly)		 Signature		 Date:
 Department Manager (Print Clearly)		 Signature		 Date:
<small>hchubbuck Rev. D, 02/28/08</small>				

Figure 1: Turnkey Project Review Form

The part number or part number series identifies the part or parts to be reviewed.



4.1 FAMILIARIZATION

Review the products by viewing their pages on the Extron public web site at <http://www.extron.com>.

1. Using the search function in the header of the Extron home web page, enter a full part number, or the first two segments of the part number, (e.g., 70-111) and click the search icon [Q].

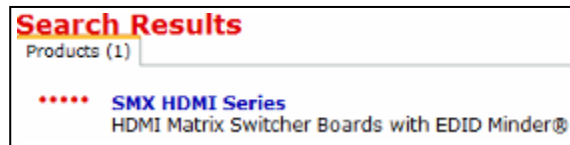


Figure 2: Web Page Search Results

2. Note the descriptive name of the product or series for use in subsequent searches.
3. Double-click the series description for details about the products in the series.
4. The part numbers listed in the request may or may not match all the part numbers of the products in a series. Review the differences; it may be appropriate to question why individual products were included in or excluded from the request.

4.2 CHECK TECH SHEETS

From the Extron Intranet home screen, click **AE Support** in the My Applications menu on the left rail to display the AE Support opening screen.

Figure 3: AE Support Search Form



Procedure: SOP

In the Search Form section, enter a full part number, or the first two segments of the part number, (e.g., 70-111) and click the **Search** button to list Tech Sheets referring to the part number or series.

ID	Subject	Customer	Product	Date	Current Owner	Status	Priority
24782	SMX	EXTRON AE LAB / TESTING	SMX 88 HDMI BOARD	9/7/2010	Jonathan Nguyen (4906)	Problem submitted to PD	Normal
24289	Not Handling ECID on Output 2	PHOENIX COLLEGE	SMX 44 HDMI BOARD	8/2/2010	Joseph Froben (5079)	Request AE Follow Up	High

Figure 4: AE Support Search Results

1. Open Tech Sheets by double-clicking on their ID number link in the first column.
2. Review and assess the design issues and how they impact outsourcing.

4.3 CHECK FLOOR ISSUES

From the Extron Intranet home screen, click **Floor Issues** in the My Applications menu on the left rail to display the Floor Issues opening screen.

Home | Extron Files | Extron.com | Spell Check | Support | Sign Out

My Applications - Edit
 AE Support
 BOM Listing
 Engineering Request
Floor Issues
 ROPS Evidence

Floor Issues

Home | New Log | Admin

Floor Issue Search Form

Text Field: -- Select --

Log ID: [] Log Date: []

Creator: -- Select -- Owner: -- Select --

Status: -- Select -- Failure: -- Select --

Building: [] [] Line #: -- Select --

Search Clear

Total Records: 55

ID	Product	Subject	Date	Creator	Owner	Status	Priority
25854	100-303-01	DOC-Change MPI 100-303-100 rev A1	11/15/2010	Joe Hoang (6659)	Marcus Alexander (6757)	Engineer/Assigned working on solution	Normal
25877	13-113-01LF	PCB1021B - hole diameter	11/17/2010	Eddie Sanchez (4422)	Richard Callaway (6215)	Open	Normal
25729	18-131-51LF	Switch Clear Cover	11/23/2010	Hiram Perez (4414)	Kingman Yee (6145)	Components requested	Normal
25511	70-1111-01LF	Annotator & USP507 PCBA ER issue	11/10/2010	Tom Lau (6510)	Hiep Nguyen (4402)	Pending	High
25247	70-1112-01LF	15-364-89LF Stackpole used on DVI CrossPoint 4X4.	10/13/2010	Hiep Nguyen (4402)	Jonathan Hui (6548)	Solution Found	Normal

Figure 5: Floor Issues



1. The Floor Issues search does not have a part number option. However, it can be sorted by part number by clicking the Product column heading. The list is not lengthy and a product number can be located by scrolling.
2. Open Floor Issues by double-clicking on their ID number link in the first column.
3. Note design-related problems.

4.3.1 Check BOM

Check the BOM to identify major PC boards and sub-assemblies and look for issues affecting them.

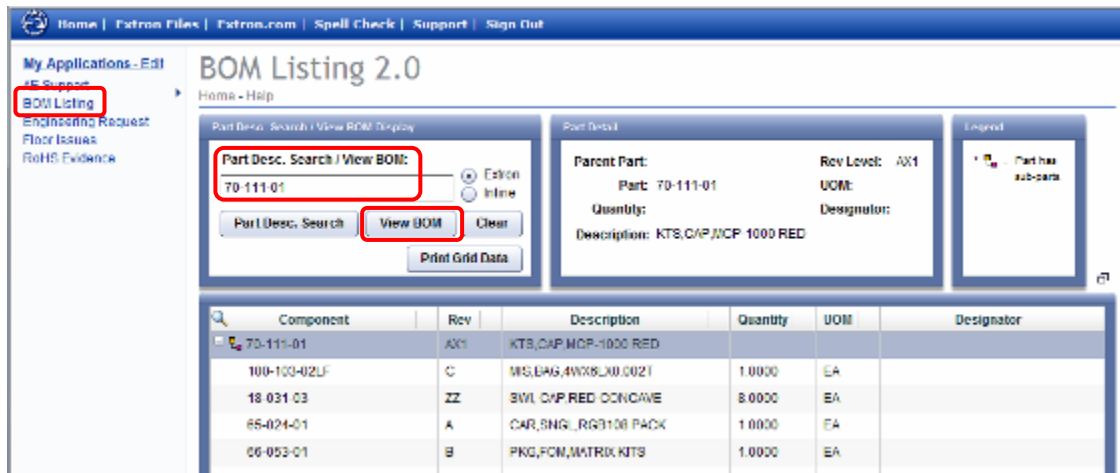


Figure 6: BOM Listing

1. From the Extron Intranet home screen, click **BOM Listing** in the My Applications menu on the left rail to display the BOM Listing opening screen.
2. Enter a part number in the Part Desc. Search/View BOM field. A complete part number (all segments) must be entered.
3. Click the **View BOM** button to list all components.
4. After identifying major PC boards and sub-assemblies, check for Floor Issues (section 4.3) and Tech Sheets (section 4.2) affecting them, and note any issues.



4.4 CHECK ENGINEERING REQUESTS

Look for open engineering logs on the product's top assembly, PCB assemblies, and firmware.

1. From the Extron Intranet home screen, click **Engineering Request** in the My Applications menu on the left rail to display the Engineering Request opening screen.

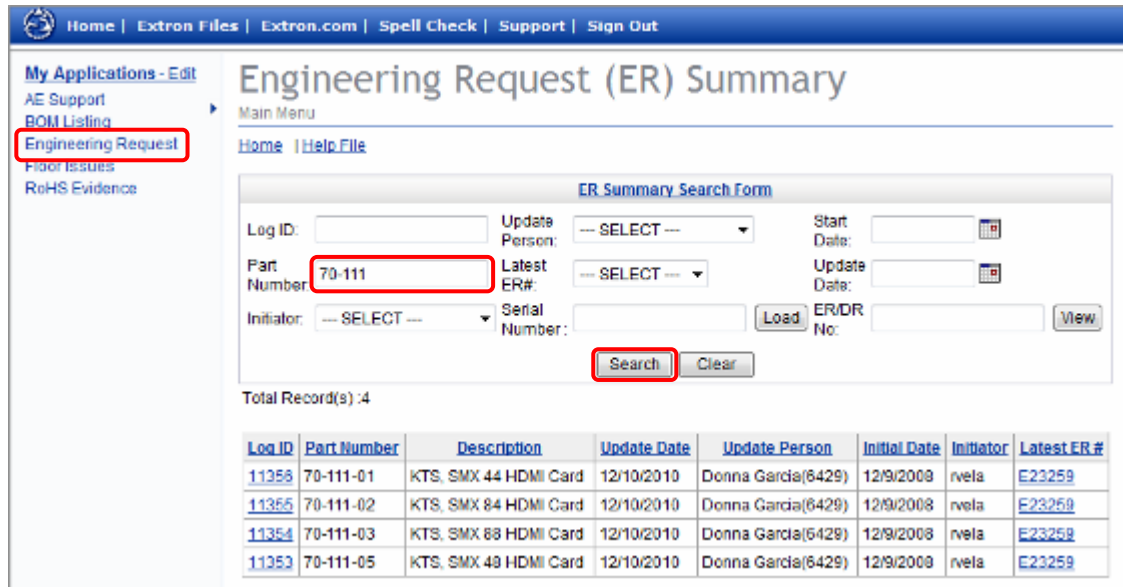


Figure 7: Engineering Request

2. In the main menu, click the ER Summary link to display the summary screen.
3. In the Part Number field, enter a full part number, or the first two segments of a part number, (e.g., 70-111) and click the **Search** button to display logs relating to the part.
4. Double-click ID number link in the first column to view details of a log.

4.5 PRODUCT MATURITY

Compose a comment on the perceived level of the product's maturity based on the number and type of field problems.



4.6 CHECK OPEN PCRs

Look for issues that may affect production, such as component issues, REDUCE COST issues, or adding of features.

1. Open the PCR Folder in DOC_CTRL: [\\ENGRNT\Engineering\DOC_CTRL\PCR](#).
2. Open the PCR Number request spreadsheet: [\\ENGRNT\Engineering\DOC_CTRL\PCR\PCR NUMBER REQUEST.xls](#)

DATE ASSIGNED	Number Assigned	Part Number (*)	Title	Rev	New PN Y/N	New Rev Y/N	Reason	Change Affected	REQUI
10/26/2010	1132 A	20-1131-08LF	PCA/PR2010204 CTRL	A		Y	12-382-021F thru 104 part is discontinued. Need to relay out the board to use SMT part 12-382-211F	20-1131-08LF - revise boards to relayout and use 12-382-211F	Don't
		20-1131-01	PCA/PR2010204 CTRL	A3		Y			
		20-1131-05LF	PCA/PR2010204 CTRL	A		Y			
		20-1131-08LF	PCT/PR2010204 CTRL	A		Y			
11/20/2010	1133 A	10-1334-08LF	PCA SW/DVA SERIES MAIN	A		Y	Hot plug detection, add circuitry	20-1334-03LF relay out	Mod

Figure 8: PCR Number Request

3. Use the find function (*ctrl-f* or Find & Select) to locate instances of a product number. Obtain the number assigned from the second column.
4. In the PCR folder, open the PCR PDF folder. Locate the file named with the assigned number. Double-click it to display the Product Change Request details (Form 71-506-01b).

4.7 ENGINEERING TASKS

Look for issues that may affect production, such as component issues, REDUCE COST issues, or adding of features.

1. In Microsoft Outlook, click the **Tasks** shortcut to display task actions in the left rail, then click **Open Shared Tasks ...** to display the Open Shared Tasks window.

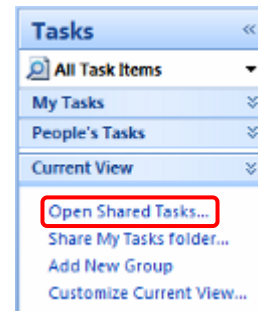
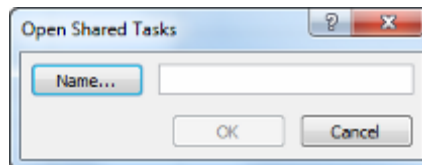


Figure 9: Open Shared Tasks

2. Either enter *Hans Rigelman* in the Name field, or click the **Name** button to open the Address List and click to select his name. Then click the **OK** button.



3. Locate relevant tasks by using the search function in the Task List:

Search Hans Rigelman - Tasks

Click the search field at the upper right of the panel and enter a full part number, or the first two segments of a part number, or some or all of the product description (see 4.1, Familiarization). Then click the search icon [Q].

4.8 RoHS COMPLIANCE

Check for RoHS compliance and note any issues.

1. From the Extron Intranet home screen, click **RoHS Evidence** in the My Applications menu on the left rail to display the RoHS Evidence opening screen.

The screenshot shows the 'RoHS Evidence' web application. On the left, a navigation menu lists 'My Applications - Edit' with sub-items: 'AE Support', 'BOM Listing', 'Engineering Request', 'Floor Issues', and 'RoHS Evidence' (highlighted with a red box). The main content area is titled 'RoHS Evidence' and contains a 'Compliance Search Form'. The form includes the following fields and controls: 'Manufacturer' (text input), 'Doc Type' (dropdown), 'Requirements' (dropdown set to '2002/95/EC RoHS'), 'Compliance Status' (dropdown), 'Extron PN' (text input with a red box around it), 'Manufacturer PN' (text input), and three buttons: 'Single-Level', 'Multi-Level', and 'Clear' (all with red boxes around them).

Figure 10: RoHS Evidence

2. Enter a part number in the Extron P/N field. A complete part number (all segments) must be entered. Click either the Single-Level or Multi-Level button to display the BOM listing of the part number.
3. Note any compliance issues.



4.9 OBSOLECENCE, EOL

Check the BOM to view the product's revision level:

1. From the Extron Intranet home screen, click **BOM Listing** in the My Applications menu on the left rail to display the BOM Listing opening screen. Enter a part number in the Part Desc. Search/View BOM field. A complete part number (all segments) must be entered.

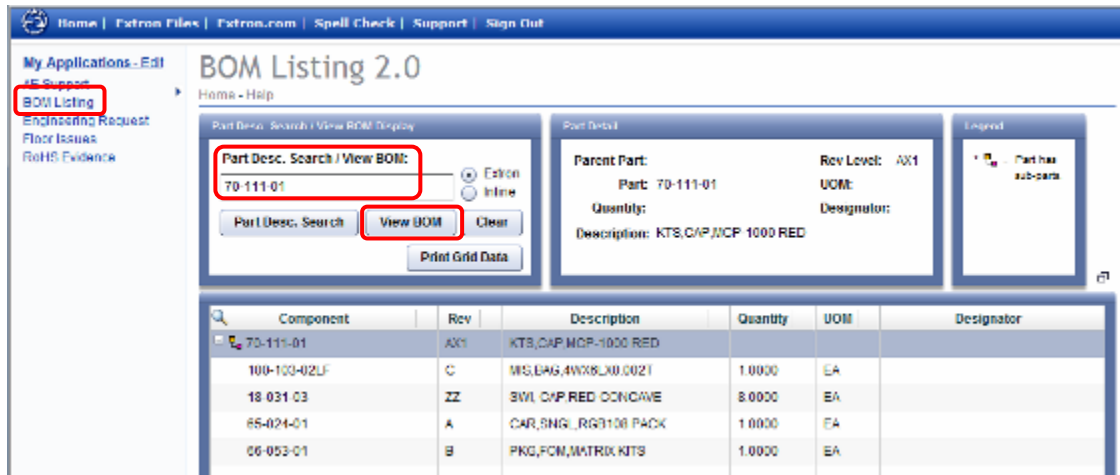


Figure 11: BOM Listing

2. Click the **View BOM** button.
3. Check for component obsolescence or EOL issues by noting the level designation in the Rev column, particularly if OBS is indicated.

4.10 SUBMIT THE RESULTS

Complete the [turnkey project request form](#).