

Integr8tor v2020.12



Release Overview

Your competitive edge ...

- QED analysis for backdrilled PCBs 
- Altium PCB Input Connector 
- DPMX (IPC-2581) data input 
- QED conditional formatting based on copper weights 
- And more!

QED analysis for backdrilled PCBs

- Fully **automated** input of backdrilled products
- Comprehensive backdrill-specific QED **analysis**

(New option)

INITIAL	FORMAT	RENAMED	FUNCTION
7770_Non_Switch_081015-bd-1-4.drl	excellon2	drl_1_4	backdrill
7770_Non_Switch_081015-bd-1-6.drl	excellon2	drl_1_6	backdrill
7770_Non_Switch_081015-bd-1-8.drl	excellon2	drl_1_8	backdrill
7770_Non_Switch_081015-bd-24-10.drl	excellon2	drl_10_24	backdrill
7770_Non_Switch_081015-bd-24-12.drl	excellon2	drl_12_24	backdrill
7770_Non_Switch_081015-bd-24-15.drl	excellon2	drl_15_24	backdrill
7770_Non_Switch_081015-bd-24-17.drl	excellon2	drl_17_24	backdrill
7770_Non_Switch_081015-bd-24-19.drl	excellon2	drl_19_24	backdrill
7770_Non_Switch_081015-bd-24-21.drl	excellon2	drl_21_24	backdrill
7770_Non_Switch_081015-bd-24-7.drl	excellon2	drl_7_24	backdrill
7770_Non_Switch_081015-bd-24-8.drl	excellon2	drl_8_24	backdrill

Altium PCB Input Connector

- Integrates an Altium Designer software to input Altium native .pcbdoc files fully automatically
- Be **the first** to get the quote out!

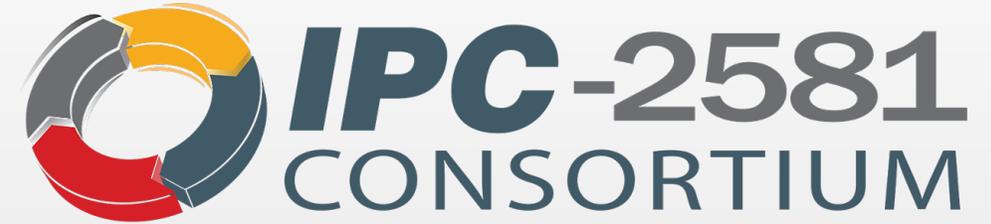
(New option)



DPMX (IPC-2581) data input

- Accept data in the emerging standard DPMX format fully automatically
- **Grow market share** by accepting any customer's preferred format

(New option)



Based on copper weights

- The red-colored cells on your QED PDF tell you **so much more** when you relate the clearances and copper widths in QED to the thickness copper weights ...

(Addition to existing QED PDF Report)

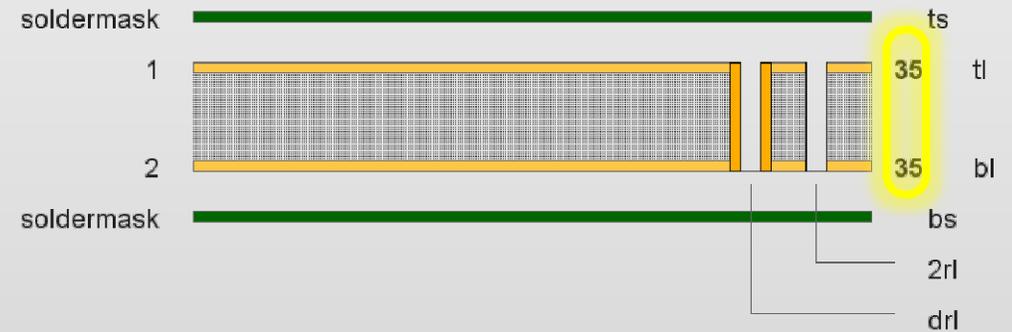
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61 Example:
62 <FormattingRule id="minimumtrack">
63   <Condition>lessthan</Condition>
64   <Value1>0.075</Value1>
65   <ThicknessRule id="base">
66     <Condition>lessthan</Condition>
67     <Value1>0.035</Value1>
68   </ThicknessRule>
69 </FormattingRule>
70 <FormattingRule id="minimumtrack">
71   <Condition>lessthan</Condition>
72   <Value1>0.1</Value1>
73   <ThicknessRule id="base">
74     <Condition>between</Condition>
75     <Value1>0.035</Value1>
76     <Value2>0.070</Value1>
77   </ThicknessRule>
78 </FormattingRule>
79 <FormattingRule id="minimumtrack">
80   <Condition>lessthan</Condition>
81   <Value1>0.125</Value1>
82   <ThicknessRule id="base">
83     <Condition>greaterthan</Condition>
84     <Value1>0.070</Value1>
85   </ThicknessRule>
86 </FormattingRule>
87 -->
```

Critical Trace Width	Copper to Copper Clr.
mm	mm
>0.40	³ 0.23

Per-layer finished and base copper weights in QED

- Include copper weights – along with other product parameters – in a gbrjob file for instance, add it to the archive and submit it to Integr8tor
- Simple, easy and slick ...

(Addition to existing QED PDF Report)



Files - Original						
Initial	Renamed	Function	Position	Color	Thickness	
					Base	Finished

Registration of the interactive time spent on a job

- Find out how much time your operators spend on jobs interactively during a 'To Ucam' session
- Identify customers providing data sets requiring systematic manual intervention and **start up the conversation** to bring the data up to standards

(Addition to existing Cockpit)

Original Data	Interactive Time
CDIpinv1.40vp (ID 18941).zip	01:21
107665.zip	00:00
107470.zip	00:00
107154.zip	00:00
107084.zip	
106488.zip	01:17
106046.zip	00:00
105847.zip	00:00
105832.zip	00:00

Auto log-off

- Have idle or stale Cockpit sessions, after a network or VPN breakdown for instance, terminated automatically
- **Avoid running out of cockpit licenses** because users forgot to log off

(Addition to existing Cockpit)

Auto log-off

Automatic log-off after

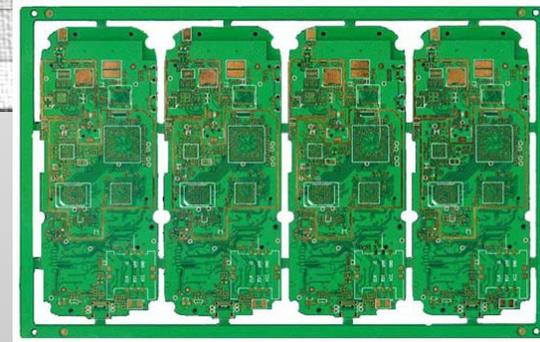
minutes

Rout length analysis

- Assembly panel routing impacts cost and delivery time considerably
- The new QED Depanel Rout Length helps to anticipate this

(Addition to existing Auto Analysis and QED PDF Report)

Customer Panel (Delivery Array, Shipping Panel) - Original									
Original Image	Panel Size	Left Border	Right Border	Top Border	Bottom Border	X Spacing	Y Spacing	PCB's	Depanel Rout Length
	mm x mm	mm				mm	mm		mm
Single PCB	178.021 x 143.000	15.000				000	3.000	3 x 2	1914.126



Addition of extra surface finishes and solder mask colors

- Additional solder mask colors and surface finishes to support your state-of-the-art manufacturing

(Addition to existing Cockpit, Email Input Integration, Web Input Integration, Hotfolder Input Integration)

QED Solder Mask analysis extensions

- An accurate analysis to report different solder mask openings on top and bottom for via holes to help **avoid surprises in production**

(Addition to existing Auto Analysis and QED PDF Report)

Annotated QED PDF

- Tooltips in our newly styled QED PDF let novice users find their way in no time ...

(Addition to existing QED PDF Report)

Partly Covered Via Holes	One Side Covered Vias ⓘ	Both Sides Covered Vias ⓘ	No Side Covered Vias ⓘ
No			

Through-hole vias that are either (partially) covered by soldermask on the top layer and (partially) free on the bottom layer or (partially) free on the top layer and (partially) covered on the bottom layer.

QED PDF Summary table revision

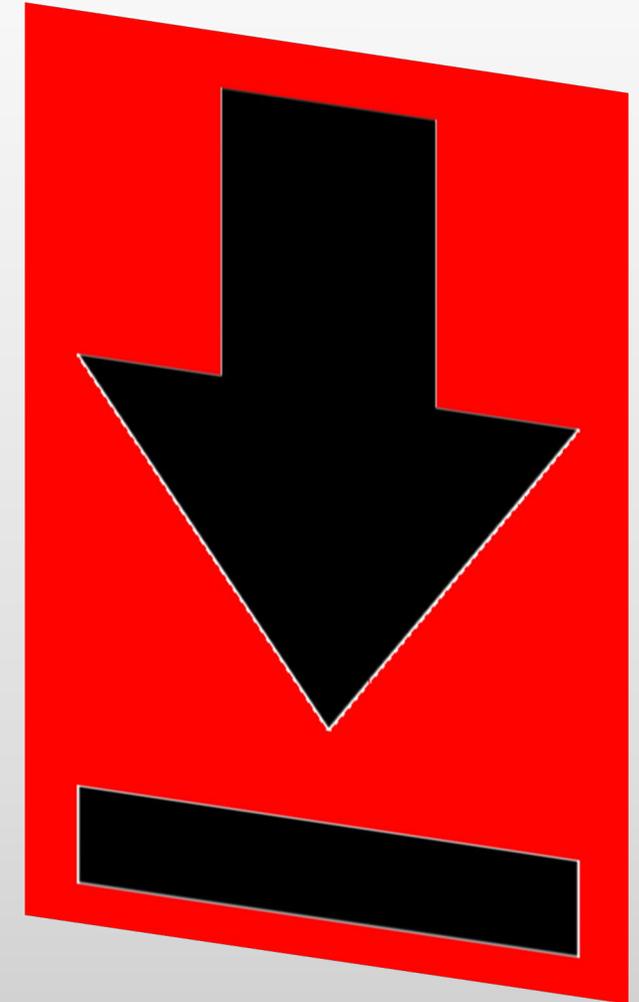
- Your one-stop location to find all board essentials has been optimized for your ease and comfort

(Addition to existing QED PDF Report)

Summary - General - Original			
PCB Size	95 mm x 103.5 mm	Customer Panel Size	8.0
PCB Thickness	1.6 mm	Max. Aspect Ratio on PTH	1
Copper Layers	6	Pressing Stages	2101 Holes/dm ²
Surface Finish	unknown	Drill Hole Density	1508
Solder Mask	Both	Testable Points	0.28 mm
Solder Mask Color	unknown	Min. SMD/BGA Size	No
Legend	No	Via in Pad	No
Legend Color		Stacked Vias	No
Edge Connector Area	0 dm ²	Castellated	No
Peeloff Mask	No	Anomalies	No
Carbon Mask	No		

Install v2020.12

- The installer can be downloaded from <ftp://ftp.ucamco.com/Integr8tor>
- We recommend installing this update at your earliest convenience
- For any further questions you may have, please contact our local business partner or the Ucamco helpdesk
- We thank you for choosing a Ucamco product



Already looking ahead



Serving our customer base with regular updates



Version	Release date	Highlights	
8.1	May-13	Support for ODB++ v7.	Compatible with Windows server 2012 and windows 8.
8.2	Nov-13	Detection and flagging of duplicate archives.	Edge connector recognition.
8.3	Jun-14	New standard parameters.	Determination of laser/mechanical drilling.
9.1	Dec-14	Support for Gerber X2 datasets.	Optimized and new QED values.
2015.05	Jun-15	New standard parameters.	Determination of laser/mechanical drilling.
2016.04	Apr-16	SMD/BGA pads differentiates copper- and solder mask defined	DFM Checks (former Capabilities) revised
2016.12	Dec-16	Introducing Integr8tor Job Perspectives	Drill hole tolerances
2017.05	May-17	Support for PCB Surface finish	Same-sized jobs detection
2017.12	Dec-17	Checkpoint review extensions for various QED results	Analysis of via holes with different solder mask openings top/bottom
2018.09	Sep-18	New QED feature: Minimum Critical Trace Width	User-selectable layer registration
2019.03	Mar-19	Measure functionality and freely displayable layers in Checkpoint	Extended import&export support for advanced ODB++ features
2019.07	Jul-19	Introducing C8 Inspect	QED Ring Analysis per tool function
2020.08	Aug-20	UcamX Workflow Edition	Must-have QED and Autoclean Additions
2020.12	Dec-20	QED Backdrill analysis	Altium PCB Input Connector

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