

# Production Status

RIKEN/RBRC

Itaru Nakagawa

# HDI Shipping to BNL

**TRACK: EXPRESS**

Enter your tracking number  ➤

**Delivered**  
October, 05 2021 14:48 Local time | Service Area: HAUPPAUGE, NY - USA

This shipment is handled by: **DHL Express**  
Tracking Code: 772880704

**Service Area: NARITA - JAPAN** ➔ **Service Area: HAUPPAUGE, NY - USA**

[Proof of Delivery](#) [Print](#)

**More Shipment Details**

Delivery Date / Time	October, 05 2021, 14:48 Local time
To protect your privacy, more delivery details are available after validation	<a href="#">Electronic Proof of Delivery</a>
1 Piece ID	JD014600007518594919

**All Shipment Updates**

**Tuesday October, 05 2021**

- 14:48 Local time | Delivered**  
Service Area: HAUPPAUGE, NY - USA  
1 Piece ID

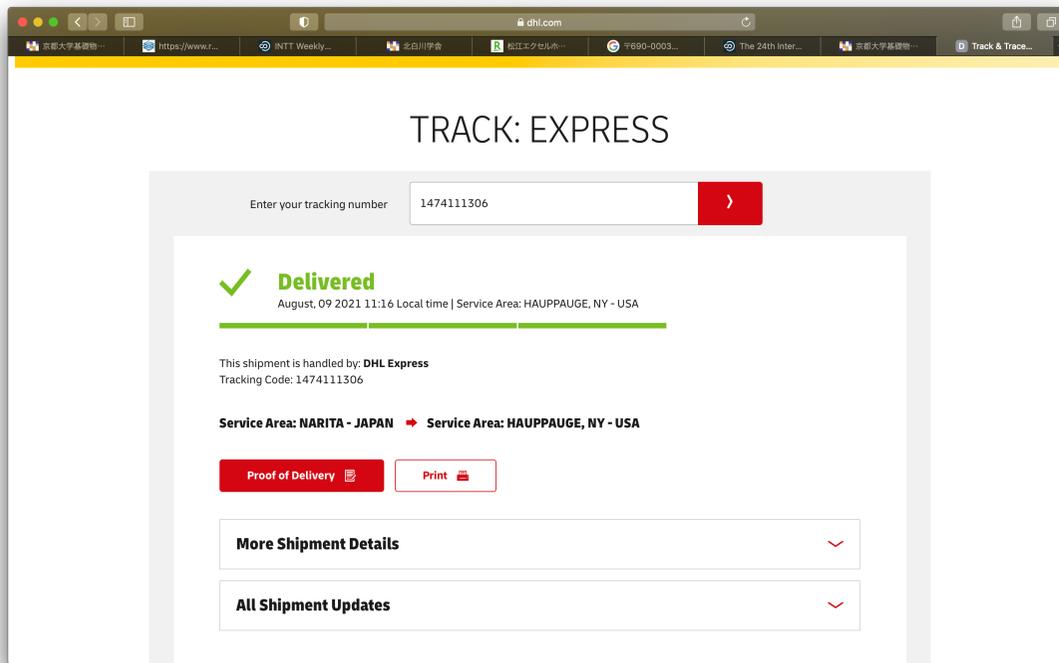
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**Tuesday October, 05 2021**

- 12:23 Local time | With delivery courier**  
HAUPPAUGE, NY - USA  
1 Piece ID
- 11:20 Local time | Arrived at Delivery Facility in HAUPPAUGE - USA**  
HAUPPAUGE, NY - USA  
1 Piece ID
- 09:46 Local time | Departed Facility in NEW YORK CITY GATEWAY - USA**  
NEW YORK CITY GATEWAY, NY - USA  
1 Piece ID
- Transferred through NEW YORK CITY GATEWAY - USA**  
NEW YORK CITY GATEWAY, NY - USA  
1 Piece ID
- 06:13 Local time | Departed Facility in CINCINNATI HUB - USA**  
CINCINNATI HUB, OH - USA  
1 Piece ID

DHL tracker states it was already “delivered”. However, the record stopped tracking at Hauppauge service station. This is always the case, so I assume it is delivered to BNL already.

# Past Tracking Records of BNL shipping



## 追跡結果

### 概要

✓ 運送状番号 2140901685 木曜日, 6月 24, 2021 at 13:22 1個  
 配達完了: 発送都市/国:  
**NARITA - JAPAN**  
 受取都市/国:  
**HAUPPAUGE, NY - USA**

日付	ロケーションの選択	時間	個
木曜日, 6月 24, 2021	ロケーションの選択		
18	配達完了 HAUPPAUGE, NY - USA	13:22	1個
17	配送中 HAUPPAUGE, NY - USA	11:57	1個
水曜日, 6月 23, 2021	ロケーションの選択		
16	DHL施設から出発 NEW YORK CITY GATEWAY - USA	20:40	1個
15	DHL施設にて搬送処理中 NEW YORK CITY GATEWAY - USA	20:40	1個
14	DHL施設から出発 CINCINNATI HUB - USA	00:03	1個
火曜日, 6月 22, 2021	ロケーションの選択		
13	DHL施設にて搬送処理中 CINCINNATI HUB - USA	23:32	1個
12	通関許可 CINCINNATI HUB - USA	10:53	
11	処理保留中 CINCINNATI HUB, OH - USA	09:00	
月曜日, 6月 21, 2021	ロケーションの選択		
10	通関手続き情報の更新 CINCINNATI HUB, OH - USA	13:33	
9	DHL施設から出発 TOKYO - JAPAN	21:16	1個

The final records are always Hauppauge service station.

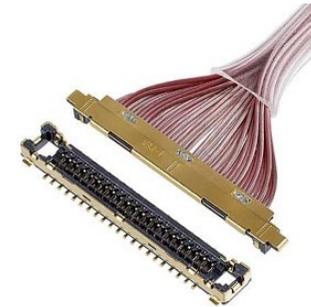
# Beam Clock Distribution Boards

A	B	C	D	E	F	G	H	I	J	K	L	M
ITEM	QTY	メーカー	型式	1U-ル数/MCQ	規格DLT	備考	代替型式	代替メーカー	備考	QTY	LOCATION	
1	6	PANASONIC	ECJ-ZEB1E102K	15,000	-	EOL品	FN18N102J500P95-GL 0603B102K500CT C1608X7R1H102K080AE GRM188R11H102KA01D	PDC WALSIN TDK MURATA	サイズ変更: 0201 (0603) →0603 (1608) 定格電圧変更: 25V→50V ※容量、許容差、温度特性同等	2	C10/C11	
2	12	PANASONIC	ECJ-1V81C104K	4,000	-	EOL品	FN18X104K500PBG-GL 0603B104K500CT GRM188R11E104KA01D GRM188R11H104KA93D	PDC WALSIN MURATA MURATA	定格電圧変更: 16V→25V or 50V ※容量、許容差、温度特性同等	8	C5/C9/C15/C18/C19/ C20/C23/C24	
3	2	PANASONIC	ECJ-3Y801106K	2,000	-	EOL品	FS31X106K250EPG-GL GRM31CD71H106KE11L GRM31CR71E106KA12L	PDC MURATA MURATA	C7/C8 サイズ変更: 1210 (3225) →1206 (3216) 定格電圧変更: 25V→25V or 50V C16/C17/C21/C22 定格電圧変更: 6.3V→25V or 50V ※部品共通化 ※容量、許容差、温度特性同等	6	C7/C8/C16/C17/C21/ C22	
4	4	TAIYO YUDEN	UMK325B1106K08P	1,000	12w以上	25V→50V品にて提案						
5	4	LITE-ON	DLKLEY_160-1181-1-ND	20,000	23w	EOL予定→代替で提出	APT1608SRCPRV	KingBright		4	DS1/DS2/DS3/DS4	
6	7	MOLEX	87831-0820	4,000	10w以上	-				-		
7	1	MOLEX	70553-0106	50	-	-				-	1	J8
8	4	COILCRAFT	1008CS-102XKBC	2,000	-	代替で提出	LQW2UAS1R0J0C*	MURATA	※サイズ、諸特性同等	4	L1/L2/L3/L4	
9	1	TYCO	⇒分取ルネージュ MiniSMDC260F-02	2,000	18w	-	MINISMDCC260F-2	LITTELFUSE		1	PTC1	
10	4	VISHAY DALE	CRCW0402121RFNED	10,000	87w以上	-	TSR3GT121V RK73H1JTTD121F CR1/16 121FV	TATEYAMA KOA HOKURIKU	サイズ変更: 0402 (1005) →0603 (1608) ※抵抗値、許容差、温度係数同等、電力UP	4	R1/R3/R6/R8	
11	6	VISHAY DALE	CRCW0201100RFNED	10,000	20w以上	-	TSR3GT101V RK73H1JTTD101F CR1/16 101FV	TATEYAMA KOA HOKURIKU	サイズ変更: 0201 (0603) →0603 (1608) ※抵抗値、許容差、温度係数同等、電力UP	2	R12/R17	
12	8	VISHAY DALE	CRCW020110K0FNED	10,000	20w以上	-	TSR3GT103V RK73H1JTTD103F CR1/16 103FV	TATEYAMA KOA HOKURIKU	サイズ変更: 0201 (0603) →0603 (1608) ※抵抗値、許容差、温度係数同等、電力UP	8	R9/R10/R11/R13/R14/ R15/R16/R18	
14	6	KEYSTONE	5015	1,000	18-20w	-				6	U1/U5/U6/U9/U11/U15	
15	4	MAXIM	MAX9169ELUE+T	2,500	未定	-				-		
16	2	AVAGO	AFBR-57MSAPZ	170	未定	-				-	2	U3/U12
17	2	MAXIM	MAX9175ELUB+T	2,500	未定	-				-	2	U4/U14
18	1	LINTEAR TECHNOLOGY	LT1587CM-3.3#TRPBF	750	30-32w	-	LMS1587IS-3.3/NOPB	TEXAS INSTRUMENTS	※パッケージ、諸特性同等	1	U8	
19	2	AMP	1367073-1	2,400	12w以上	-				-		
20	2	AMP	73927-0002			EOL品	U77-A1118-200T	Amphenol	OR ?	2	U3/U12	
21	2	AMP	73927-0004			EOL品						
			TP0INT_3P				OPEN	OPEN	未実装	4	TP1/TP2/TP3/TP4	

- Even the alternative components are selected, parts cost is estimated to be \$30,000 for 20 BCDB by ARS co.
- This is unreasonably pricy, so we'll start looking for alternative quote from different company.
- The alternative quote is likely to be mandatory even for 2 prototype fabrication. Too bad.

# Conversion Cable

- We considered other models, like I-PEX, JAE, etc...
- Itaru did performance study previously and it will take a few more weeks to know their performance tot the level of KEL.
- Unknown radiation hardness is also a concern.
- It's a risk to drop KEL option completely now.



## CABLINE®-UX II

The simulation for transmission performance

Part No. Plug: 20531-0\*\*T-02, Receptacle: 20533-0\*\*E

Technical Report

Rev.	ECN	Date	Prepared by	Checked by	Approved by
0	R21018	2021/01/18	A.Koyama	T.Taniguchi	H.Kitai

## Specification Comparison (Executive Summary)

High Frequency Signal Transmission Performance @400MHz

	FPC		KEL XSL				IPEX UX-II
Length [cm]	<b>20</b>	40	10	10	20	30	50
AWG	<b>N/A</b>	N/A	46		44		44
Impedance [ $\Omega$ ]	<b>50</b>	50	50		45 $\pm$ 3		50
Diff Impedance [ $\Omega$ ]	<b>110</b>	110	93		83		
Insertion Loss [%]	<b>80</b>	56	84	90	84	80	
Return Loss [%]	<b>10</b>	20	25		18		
Cross Talk [%]	<b>&lt;12*</b>		1				
Eye Diagram	<b>similar</b>		similar				

\*20cm conversion cable with bus extender

There is no data available for the exactly same condition between FPC and  $\mu$ Coax cables. Presumably 20cm FPC can be compared to XSL-AWG46-10cm and XSL-AWG44-20cm. Resulting performances look similar within 20cm. To be executed actual measurement once prototype is made. Hard to extrapolate the performance to 1.41m, need to wait for the actual measurement.

Conclusion

We'll proceed to do prototype with KEL even though their leadtime is 3monthes. Arranged a meeting with KEL co. on Monday next week.

# Windows-10 Upgrade

- Current FPGA codes only compile with ISE7.4 (Xilinx)
- ISE7.4 only runs on Windows 7.
- FPGA codes are to be upgraded by HDLab co. to be compatible with the latest version ISE14.7.
- ISE14.7 runs on Windows-10.
- Ultimate goal is to get rid of Windows-7 completely.

Kick off meeting with HDLab on Oct.4<sup>th</sup>(Takashi, Genki, Itaru). Expected completion by the end of October.

