

67997-420HLF - BergStik® :
Unshrouded Header, Through
Hole, Double Row, 20
Positions, 2.54 mm Pitch,
Vertical, 5.84 mm (0.23 in.)
Mating, 3.05 mm (0.12 in.) Tail



www.fci.com

Mating Half

- 87606-310LF
- 76342-310LF
- 89898-310LF
- 71609-310LF

Specifications

General

Number of contacts (per row)	10
Number of contacts (Total)	20
Number of rows	2
Orientation	Vertical
Packaging	Bulk Packaging
Attachment type (Board)	Through Hole
Series Number	67997

Dimensional

Length (Mating pin)	5.84 mm (0.23 in.)
Length (Overall pin)	11.43 mm (0.45 in.)
Length (Tail)	3.05 mm (0.12 in.)

Electrical

Current rating	3 amp Continuous
Resistance (Insulation)	5000 M-ohms
Voltage rating	1500V AC rms

Mechanical

Retention force	8.88N (2 lbf)
-----------------	---------------

Mounting

Retention feature (Board)	No
Solder process	Vapor-phase IR Reflow Soldering Processes Compatible with Wave

Physical	
Color (Housing)	Black
Material (Contact)	Phospor Bronze
Material (Housing)	High Temperature Black Thermoplastic
Plating (Contact area)	Tin
Plating (Tail)	Tin
Underplating (Contact)	1.27 µm (50 µin.) Nickel
Flammability rating	UL 94 V-0
Temperature (Range)	-65°C to +125°C
Approvals / Certifications	
UL File Number	E66906
CSA File Number	LR46923
Approvals / Certifications	UL and CSA Approved
Other Features	
Comments	Sample Kit 950501-016
Literature	950559-001

PRODUCT NUMBER

XXXXX-YYYHPLF

LEAD FREE OPTION
SEE NOTE 1,13

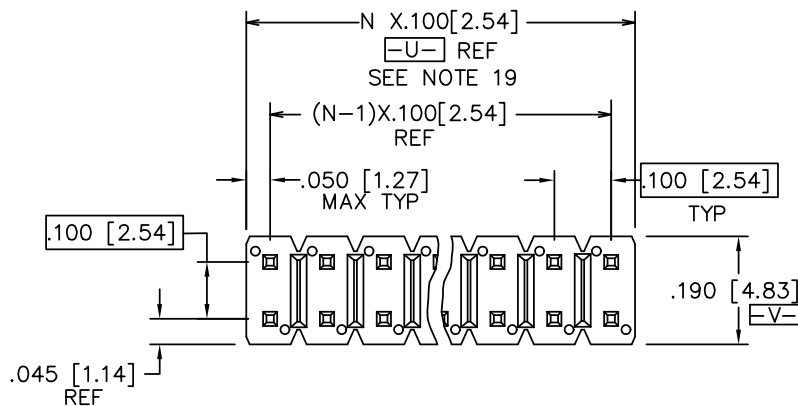
SPECIAL OPTIONS
SEE NOTE 1 OR 10

HIGH TEMPERATURE PLASTIC
SEE NOTE 1

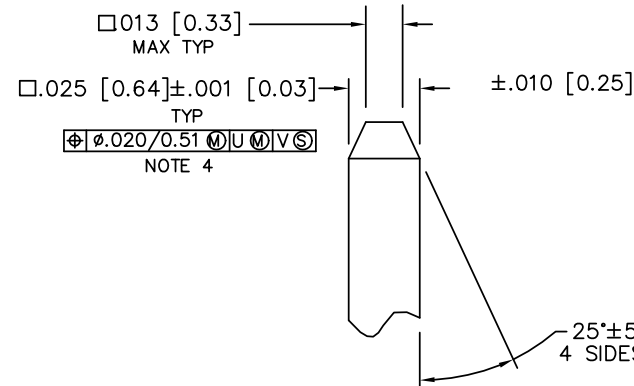
NO OF
POSITIONS
SEE NOTE 1

PIN PLATING
SEE SHEET 2

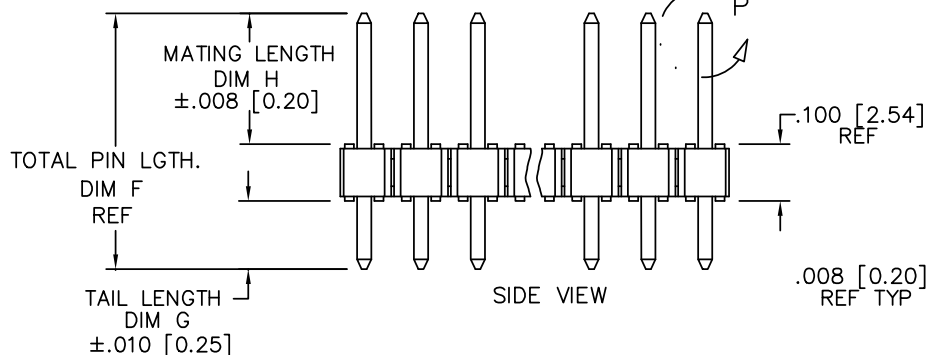
BASE PART NO.



TOP VIEW



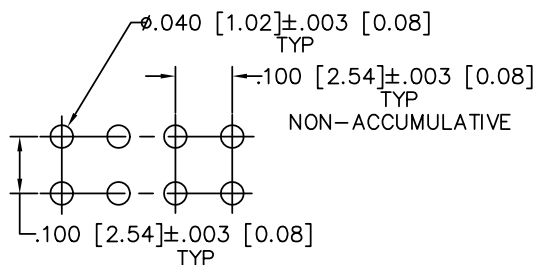
DETAIL P
SCALE 5:1
TYP BOTH ENDS



SIDE VIEW

END VIEW

NOTE 6



RECOMMENDED HOLE PATTERN

67996-X XX-XXX XXX LF

TAIL LENGTH (EXAMPLE BELOW)
3.0mm=030 12.8mm=128
(SEE NOTE 16 & 17)

MATING LENGTH (EXAMPLE BELOW)
5.0mm=050 25.5mm=255
(SEE NOTE 16 & 17)

TOTAL NUMBER OF POSITIONS
FROM 2 (2X1) THRU 72 (2X36) POS.

PIN PLATING (SEE NOTE 14)
1=0.76µm Au
4= PURE TIN
8=0.36µm Au

BASE PART NO.
DOUBLE ROW

mat'l. code NOTE 2 & 3				surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection ISO 1101	product family BERGSTIK
ltr	ecn no	dr	date	tolerances unless otherwise specified		INCH/MM scale 2:1	title BERGSTIK II HEADER D/R .100/2.54cc STRAIGHT
DF	N11-0180	J.Z	2011-05-31	angles	linear		
DG	ELX-N-13471	J.Z	2011-11-16	0°±2°	linear	FCI	dwg no 67996 sheet 1 of 8 size A3
				dr	T.BREWBAKER	12/21/94	
				enr	T.HANNA	12/21/94	
				chr	J.MURPHY	12/21/94	
				appd	T.HANNA	12/21/94	type Product Customer Drawing
sheet index	revision sheet	DG	...	DG	...	...	

PDS: Rev :DG

STATUS: Released

Printed: Nov 16, 2012

PIN PLATING CODES:	
XXXX-1YY	30u"/0.76u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-2YY	15u"/0.38u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-3YY	50u"/1.27u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-4YY	100u"/2.54u MIN Sn OVER 50u"/1.27u MIN Ni (SEE NOTE 15)
XXXX-4YYHLF	
XXXX-5YY	15u"/0.38u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-6YY	30u"/0.76u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-7YY	30u"/0.76u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-8YY	15u"/0.38u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-9YY	15u"/0.38u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni
XXXX-0YY	30u"/0.76u MIN (SEE NOTE 14) OVER 50u"/1.27u MIN Ni

NOTES

1. PART NUMBER OPTIONS:
PIN PLATING CODES (SEE ABOVE)

HIGH TEMPERATURE MATERIAL:

PART NUMBERS WITH AND WITHOUT "H" WILL BE SUPPLIED WITH HIGH TEMPERATURE PLASTIC.

NUMBER OF POSITIONS :

EVEN NUMBER OF POSITIONS FROM 2 (2X1) THROUGH 72 (2X36).
-X00H INDICATES BERGSTRIIP PRODUCT. SEE PAGE 3
FOR SPECIAL GEOMETRY OF THIS CONTINUOUS STRIP PRODUCT.
AUTOMATED REELS WILL CONTAIN 45,000 PINS.
SEE SPECIFIC PART NUMBERS FOR AVAILABILITY.

PACKAGING:

PACKAGED IN POLY BAGS.
EIGHT DIGIT PART NUMBERS FOLLOWED BY A "T" ARE PACKAGED
IN TUBES. SEE SPECIFIC PART NUMBERS FOR AVAILABILITY.
EIGHT DIGIT PART NUMBERS FOLLOWED BY A "G" ARE PACKAGED
IN GPAX FOR IBM ONLY. SEE SPECIFIC PART NUMBERS FOR AVAILABILITY.
PART NUMBERS FOLLOWED BY A "C" ARE PACKAGED IN TUBES
WITH A PICKUP CAP APPLIED.
EIGHT DIGIT PART NUMBERS FOLLOWED BY A "A" ARE PACKAGED 
IN TAPE/REEL WITH PICKUP CAP P/N 95730-003 APPLIED, PER BUS-14-345.

LEAD FREE:

ADD "HLF" SUFFIX AT THE END OF PART NUMBER FOR LEAD FREE
OPTION, NOT AVAILABLE FOR -5YY,-5YYH, -6YY & -6YYH

2. BODY MATERIAL:

BODY MATERIAL : MANUFACTURER'S OPTION OF NYLON, PCT GLASS FIBER
REINFORCED OR MINERAL FILLED LCP FLAME RETARDENT PER UL-94V-0.
COLOR: BLACK
BERGSTRIIP™ PRODUCED WITH HIGH TEMPERATURE LCP
THERMOPLASTIC, FLAME RETARDENT PER UL-94V-0.
COLOR: BLACK
PART NUMBERS WITH "H" AND WITHOUT SUFFIX WILL WITHSTAND EXPOSURE
TO 260° C PEAK TEMPERATURE FOR 20 SECONDS IN
WAVE SOLDER, INFRA-RED OR VAPOR PHASE SOLDER PROCESS.

3. PIN MATERIAL: PHOS BRONZE.
4. MEASURED WITH PART IN RESTRAINED CONDITION.
5. TWO SIDES OF PIN TIPS NOT PLATED. TYPICAL BOTH ENDS.
6. 2LBS/0.9KG MIN PIN RETENTION IN EITHER DIRECTION.
7. MILITARY BERGSTIK HEADER
P/N XXXXX-XY-MIL
NOT AVAILABLE.
8. ±.010/0.25 TOL APPLIES TO ALL "G" TAILS EXCEPT
INDICATED PARTS ON TABLE WHERE +.010/0.25 -.000/0.00
APPLIES.
9. NOTCH CONFIGURATION WILL VARY PER VENDOR'S DISCRETION.
10. BERGSTRIIP™ PART NUMBERS FOLLOWED BY
BY A "B" ARE BULK PRICED.
11. TAIL LENGTH (DIM. G) TO BE ±.008/.020.
12. POSITIONS PER ROW 37 TO 50 CAN BE PRODUCED,
BUT FLATNESS AND CURVATURE MAY NOT BE
HELD AS CLOSE AS 36 POSITIONS.
13. THESE PRODUCTS MEETS EUROPEAN UNION DIRECTIVES AND OTHER
COUNTRY REGULATION AS DESCRIBED IN GS-22-008.
14. PLATING OPTIONS:
PERFORMANCE PLATING WILL BE EITHER GOLD OR GXT ON POST OR TAIL,
OPTIONALLY (78~295u")/2~7.5u) TIN ON TAIL.
15. "THIS PRODUCT HAS 100% TIN PLATING IN THE INTERFACE AND
HAS NOT BEEN TESTED FOR WHISKER GROWTH IN ALL INTERCONNECT
ENVIRONMENTS."
16. THE OAL DON'T EXCEED 34.5mm
17. INCREMENTS BY 0.1mm IN LENGTHS ONLY
18. FOR SPECIAL PACKAGING REQUEST PLEASE CONTACT PRODUCT MANAGER FOR AVAILABILITY
19. TO DETERMINE DIMENSIONS:
N=NUMBER OF POSITION PER ROW
EXAMPLE: 10 POS. N X .100/2.54

mat'l. code NOTE 2 & 3				surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection 		product family BERGSTIK	
ltr	ec	no	dr	date	tolerances unless otherwise specified			title		BERGSTIK II HEADER D/R	
DG					angles	linear	.XX±.01/.X±.3	INCH/MM		.100/2.54cc STRAIGHT	
					0°±2°		.XXX±0.005/.XXX±.13	scale 2:1		dwg no	
					dr	T.BREWBAKER	12/21/94			sheet 2 of 8 size	
					enr	T.HANNA	12/21/94			67996 A3	
					chr	J.MURPHY	12/21/94			type Product Customer Drawing	
					appd	T.HANNA	12/21/94				
sheet index		revision sheet									

1

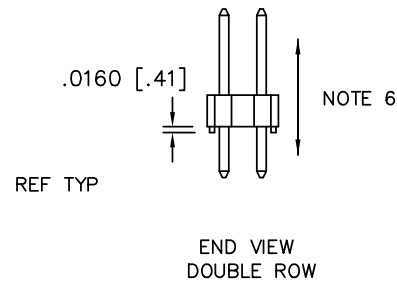
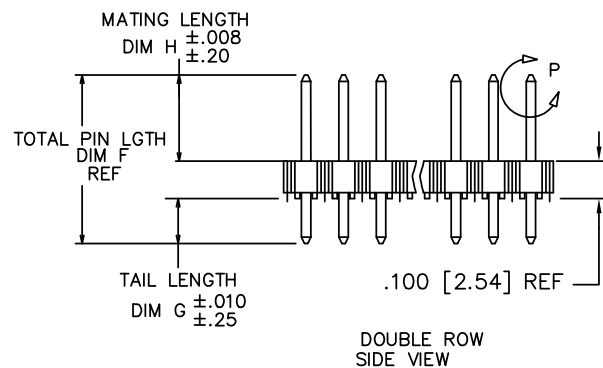
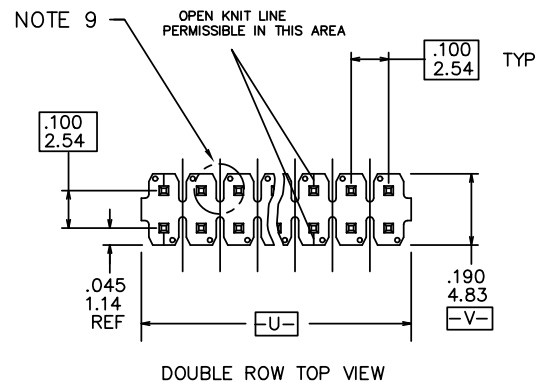
2 3

4

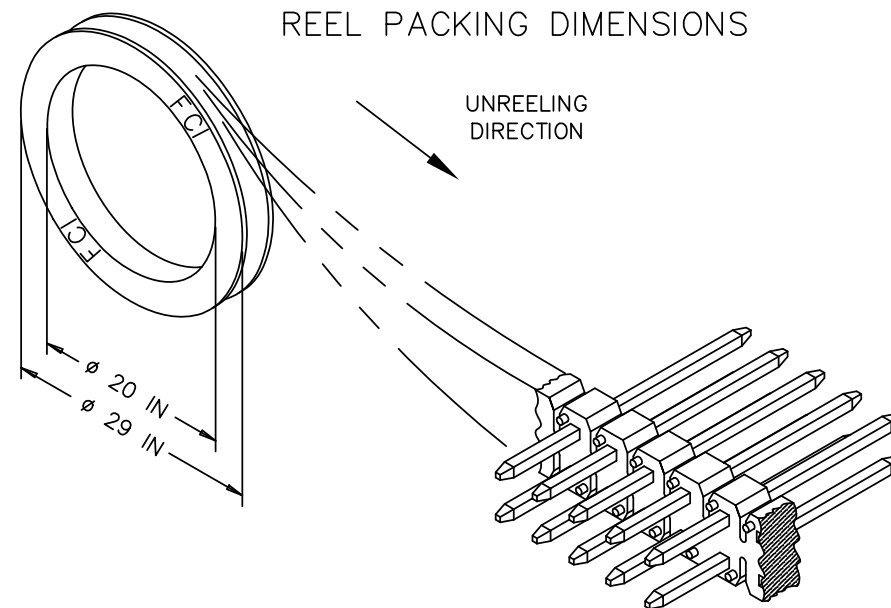
5

6

BERGSTRIPTM HEADER



REEL PACKING DIMENSIONS



mat'l. code NOTE 2 & 3				surface ISO 1302 ✓		tolerance ISO 406 ISO 1101	projection 	product family BERGSTIK	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title	
DG				angles	linear	.XX±.01/.X±.3	INCH/MM	BERGSTIK II HEADER D/R .100/2.54cc STRAIGHT	
				0°±2°		.XXX±0.005/.XXX±.13			
						.XXXX±0.020/.XXX±.05			
		dr	T.BREWBAKER	12/21/94			scale 2:1 	dwg no	
		enr	T.HANNA	12/21/94				sheet 3 of 8	
		chr	J.MURPHY	12/21/94				67996	
		app	T.HANNA	12/21/94				type Product Customer Drawing	
sheet index	revision sheet								

1

2

3

4

5

6

PRODUCT NUMBER	TOT. PIN LGTH.		TAIL LENGTH		MATING LENGTH		PACKAGING	NOTES	BERGSTRIIP™ AVAILABLE	LF OPTION
	DIM F	DIM F	DIM G	DIM G	DIM H	DIM H				
	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC				
55005-YYYH	0.597	15.16	0.095	2.41	0.402	10.21	POLY BAGS	-	YES	NOTE 1,13
55030-YYYH	0.630	16.00	0.150	3.81	0.380	9.65	POLY BAGS	-	YES	
67996-YYY	0.425	10.80	0.095	2.41	0.230	5.84	POLY BAGS/TUBES	-	YES	
67997-YYY	0.450	11.43	0.120	3.05	0.230	5.84	POLY BAGS/TUBES	-	YES	
67997-YYYH	0.450	11.43	0.120	3.05	0.230	5.84	POLY BAGS/TUBES	-	YES	
67998-YYY	0.525	13.34	0.107	2.72	0.318	8.08	POLY BAGS/TUBES	-	YES	
67999-YYY	0.548	13.92	0.130	3.30	0.318	8.08	POLY BAGS	-	NO	
68438-YYY	0.555	14.10	0.225	5.72	0.230	5.84	POLY BAGS/TUBES	-	NO	
68439-YYY	0.720	18.29	0.120	3.05	0.500	12.70	POLY BAGS	-	NO	
68464-YYY	0.650	16.51	0.120	3.05	0.430	10.92	POLY BAGS/TUBES	-	NO	
68481-YYY	0.480	12.19	0.095	2.41	0.285	7.24	POLY BAGS/TUBES	-	NO	
68482-YYY	0.938	23.83	0.318	8.08	0.520	13.21	POLY BAGS	-	NO	
68491-YYY	0.475	12.07	0.120	3.05	0.255	6.48	POLY BAGS/TUBES	-	NO	
68600-YYY	0.825	20.96	0.115	2.92	0.610	15.49	POLY BAGS	-	NO	
68601-YYY	0.620	15.75	0.120	3.05	0.400	10.16	POLY BAGS	-	NO	
68602-YYY	0.480	12.19	0.150	3.81	0.230	5.84	POLY BAGS	-	YES	
68690-YYY	0.533	13.54	0.115	2.92	0.318	8.08	POLY BAGS	-	NO	
68691-YYY	0.538	13.67	0.120	3.05	0.318	8.08	POLY BAGS	-	YES	
68692-YYY	0.430	10.92	0.100	2.54	0.230	5.84	POLY BAGS	-	NO	
68693-YYY	0.938	23.83	0.520	13.21	0.318	8.08	POLY BAGS	-	NO	
68716-YYY	0.828	21.03	0.410	10.41	0.318	8.08	POLY BAGS	-	NO	
68734-YYY	0.615	15.62	0.230	5.84	0.285	7.24	POLY BAGS	-	NO	
68737-YYY	0.440	11.18	0.110	2.79	0.230	5.84	POLY BAGS	-	YES	
68738-YYY	0.615	15.62	0.115	2.92	0.400	10.16	POLY BAGS	-	NO	
68739-YYY	0.486	12.34	0.156	3.96	0.230	5.84	POLY BAGS	-	NO	
68743-YYY	0.638	16.21	0.220	5.59	0.318	8.08	POLY BAGS	-	NO	
68749-YYY	0.838	21.29	0.420	10.67	0.318	8.08	POLY BAGS	-	NO	
68779-YYY	0.736	18.69	0.318	8.08	0.318	8.08	POLY BAGS	-	NO	
68783-YYY	0.375	9.53	0.045	1.14	0.230	5.84	POLY BAGS	-	NO	
68799-YYY	0.925	23.50	0.595	15.11	0.230	5.84	POLY BAGS	-	NO	NOTE 1,13

FCIconnect.com

Copyright FCI

mat'l. code				surface		tolerance		projection		product family	
NOTE 2 & 3				ISO 1302 ✓		ISO 406 ISO 1101				BERGSTIK	
ltr	ecn	no	dr	date	tolerances unless otherwise specified					title	
DG					angles	linear	.XX±.01/.X±.3	INCH/MM		BERGSTIK II HEADER D/R	
							.XXX±0.005/.XXX±.13			.100/2.54cc STRAIGHT	
					0°±2°		.XXX±.0020/.XXX±.05	scale 2:1			
					dr	T.BREWBAKER	12/21/94			dwg no sheet 4 of 8 size	
					enr	T.HANNA	12/21/94			67996 A3	
					chr	J.MURPHY	12/21/94			type Product Customer Drawing	
					appd	T.HANNA	12/21/94				
sheet index	revision sheet										

form: A3

1

2

3

4

5

6

PDS: Rev :DG

STATUS: Released

Printed: Nov 16, 2012

PRODUCT NUMBER	TOT. PIN LGTH.		TAIL LENGTH		MATING LENGTH				BERGSTRIPTM	LF OPTION	
	DIM F	DIM F	DIM G	DIM G	DIM H	DIM H	PACKAGING	NOTES	AVAILABLE		
	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC					
78995-YYY	UNAVAILABLE		UNAVAILABLE		UNAVAILABLE			-	-	NOTE 1,13	
78996-YYY	UNAVAILABLE		UNAVAILABLE		UNAVAILABLE			-	-		
79242-YYY	0.930	23.62	0.340	8.64	0.490	12.45	POLY BAGS	-	NO		
79243-YYY	1.230	31.24	0.390	9.91	0.740	18.80	POLY BAGS	-	NO		
79244-YYY	UNAVAILABLE		UNAVAILABLE		UNAVAILABLE			-	-		
79268-YYY	1.020	25.91	0.120	3.05	0.800	20.32	POLY BAGS	-	NO		
79271-YYY	1.100	27.94	0.500	12.70	0.500	12.70	POLY BAGS	-	NO		
79425-YYY	0.410	10.41	0.120	3.05	0.190	4.83	POLY BAGS	-	NO		
79821-YYY	0.730	18.54	0.200	5.08	0.430	10.92	POLY BAGS	-	NO		
84610-YYYH	0.380	9.65	0.120	3.05	0.160	4.06	POLY BAGS	-	NO		
84760-YYYH	0.870	22.09	0.150	3.81	0.620	15.74	POLY BAGS	-	NO		
84784-YYYH	1.130	28.70	0.122	3.09	0.908	23.06	POLY BAGS	-	NO		
84934-YYYH	1.375	34.93	0.625	15.88	0.650	16.51	POLY BAGS	-	NO		
84976-YYYH	0.730	18.54	0.400	10.16	0.230	5.84	POLY BAGS	-	NO		
86503-YYY	0.470	11.94	0.120	3.05	0.250	6.35	POLY BAGS	-	NO		
86581-YYY	0.450	11.43	0.120	3.05	0.230	5.84	POLY BAGS	NOTE 8	NO		
86817-YYY	0.925	23.50	0.120	3.05	0.705	17.91	POLY BAGS	-	NO		
86827-YYY	0.700	17.78	0.120	3.05	0.480	12.19	POLY BAGS	-	NO		
86832-YYY	0.525	13.34	0.100	2.54	0.325	8.26	POLY BAGS	-	NO		
86834-YYY	1.335	33.91	0.585	14.86	0.650	16.51	POLY BAGS	-	NO		
86836-YYY	0.870	22.10	0.120	3.05	0.650	16.51	POLY BAGS	-	NO		
86837-YYY	0.600	15.24	0.120	3.05	0.380	9.65	POLY BAGS	-	NO		
87037-YYY	1.240	31.50	0.120	3.05	1.020	25.91	POLY BAGS	-	NO		
87052-YYY	0.990	25.15	0.120	3.05	0.770	19.56	POLY BAGS	-	NO		
87203-YYY	0.545	13.84	0.150	3.81	0.295	7.49	POLY BAGS	-	NO		
87344-YYY	1.375	34.93	0.219	5.56	1.056	26.82	POLY BAGS	-	NO		NOTE 1,13

[illegible]

