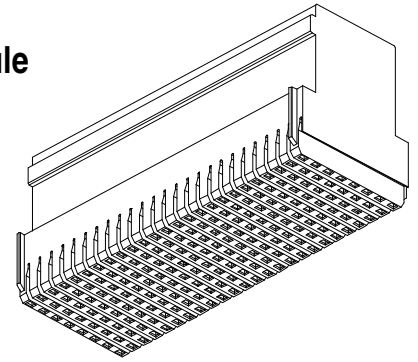




**\*VHDM® Backplane Signal Insertion Module  
Application Tooling Specification  
Press-In Tool  
Order No. 62202-0210**



**FEATURES**

- Polarized tool prevents product damage.
- Tool provides uniform distribution of press force across entire pin array.
- May be used as a stand-alone tool or mounted in an optional tooling holder with other Molex press-in tools.

**SCOPE**

Products: \*VHDM® Standard Shield Signal Module Assembly, (200 Circuits), 74060, 74061, 74062, 74075, 74078, 74457, and 74458 Series 8 Rows by 25 Columns Assemblies.  
2.00mm (.079") Pitch VHDM® Lite Signal Module Assembly, (200 Circuits), 75197, 75198, and 75199 Series 8 Rows by 25 Columns Assemblies. See Product List below for specific part numbers.

**Product List**

The following is a partial list of the product order numbers and their specifications this tool is designed to run. Updates to this list are available on [www.molex.com](http://www.molex.com).

74060 Series Number							
Guide Style	Columns	Assembly Order Number					
Open End	8	74060-2501	74060-2502	74060-2503	74060-2504	74060-2506	74060-2507
		74060-2508	74060-2509				
		74060-2601	74060-2602	74060-2603	74060-2604	74060-2606	74060-2607
		74060-2608	74060-2609				
		74060-8501	74060-8502	74060-8503	74060-8504	74060-8506	74060-8507
		74060-8508	74060-8509				
		74060-8601	74060-8602	74060-8603	74060-8604	74060-8606	74060-8607
		74060-8608	74060-8609				

74061 Series Number							
Guide Style	Columns	Assembly Order Number					
Signal End	8	74061-2501	74061-2502	74061-2503	74061-2504	74061-2506	74061-2507
		74061-2508	74061-2509	74061-2511	74061-2512	74061-2513	74061-2514
		74061-2516	74061-2517	74061-2518	74061-2519	74061-2521	74061-2522
		74061-2523	74061-2524	74061-2526	74061-2527	74061-2528	74061-2529
		74061-2531	74061-2532	74061-2533	74061-2534	74061-2536	74061-2537
		74061-2538	74061-2539	74061-2541	74061-2542	74061-2543	74061-2544
		74061-2546	74061-2547	74061-2548	74061-2549	74061-2551	74061-2552
		74061-2553	74061-2554	74061-2556	74061-2557	74061-2558	74061-2559
		74061-2561	74061-2562	74061-2563	74061-2564	74061-2566	74061-2567
		74061-2568	74061-2569	74061-2571	74061-2572	74061-2573	74061-2574
		74061-2576	74061-2577	74061-2578	74061-2579	74061-2581	74061-2582
		74061-2583	74061-2584	74061-2586	74061-2587	74061-2588	74061-2589
		74061-2601	74061-2602	74061-2603	74061-2604	74061-2606	74061-2607
		74061-2608	74061-2609	74061-2611	74061-2612	74061-2613	74061-2614
		74061-2616	74061-2617	74061-2618	74061-2619	74061-2621	74061-2622
		74061-2623	74061-2624	74061-2626	74061-2627	74061-2628	74061-2629

74061 Series Number							
Guide Style	Columns	Assembly Order Number					
Signal End	8	74061-2631	74061-2632	74061-2633	74061-2634	74061-2636	74061-2637
		74061-2638	74061-2639	74061-2641	74061-2642	74061-2643	74061-2644
		74061-2646	74061-2647	74061-2648	74061-2649	74061-2651	74061-2652
		74061-2653	74061-2654	74061-2656	74061-2657	74061-2658	74061-2659
		74061-2661	74061-2662	74061-2663	74061-2664	74061-2666	74061-2667
		74061-2668	74061-2669	74061-2671	74061-2672	74061-2673	74061-2674
		74061-2676	74061-2677	74061-2678	74061-2679	74061-2681	74061-2682
		74061-2683	74061-2684	74061-2686	74061-2687	74061-2688	74061-2689
		74061-8501	74061-8502	74061-8503	74061-8504	74061-8506	74061-8507
		74061-8508	74061-8509	74061-8511	74061-8512	74061-8513	74061-8514
		74061-8516	74061-8517	74061-8518	74061-8519	74061-8521	74061-8522
		74061-8523	74061-8524	74061-8526	74061-8527	74061-8528	74061-8529
		74061-8531	74061-8532	74061-8533	74061-8534	74061-8536	74061-8537
		74061-8538	74061-8539	74061-8541	74061-8542	74061-8543	74061-8544
		74061-8546	74061-8547	74061-8548	74061-8549	74061-8551	74061-8552
		74061-8553	74061-8554	74061-8556	74061-8557	74061-8558	74061-8559
		74061-8561	74061-8562	74061-8563	74061-8564	74061-8566	74061-8567
		74061-8568	74061-8569	74061-8571	74061-8572	74061-8573	74061-8574
		74061-8576	74061-8577	74061-8578	74061-8579	74061-8581	74061-8582
		74061-8583	74061-8584	74061-8586	74061-8587	74061-8588	74061-8589
		74061-8601	74061-8602	74061-8603	74061-8604	74061-8606	74061-8607
		74061-8608	74061-8609	74061-8611	74061-8612	74061-8613	74061-8614
		74061-8616	74061-8617	74061-8618	74061-8619	74061-8621	74061-8622
		74061-8623	74061-8624	74061-8626	74061-8627	74061-8628	74061-8629
		74061-8631	74061-8632	74061-8633	74061-8634	74061-8636	74061-8637
		74061-8638	74061-8639	74061-8641	74061-8642	74061-8643	74061-8644
		74061-8646	74061-8647	74061-8648	74061-8649	74061-8651	74061-8652
		74061-8653	74061-8654	74061-8656	74061-8657	74061-8658	74061-8659
		74061-8661	74061-8662	74061-8663	74061-8664	74061-8666	74061-8667
		74061-8668	74061-8669	74061-8671	74061-8672	74061-8673	74061-8674
74061-8676	74061-8677	74061-8678	74061-8679	74061-8681	74061-8682		
74061-8683	74061-8684	74061-8686	74061-8687	74061-8688	74061-8689		

74062 Series Number							
Guide Style	Columns	Assembly Order Number					
Shield End	8	74062-2501	74062-2502	74062-2503	74062-2504	74062-2506	74062-2507
		74062-2508	74062-2509	74062-2511	74062-2512	74062-2513	74062-2514
		74062-2516	74062-2517	74062-2518	74062-2519	74062-2521	74062-2522
		74062-2523	74062-2524	74062-2526	74062-2527	74062-2528	74062-2529
		74062-2531	74062-2532	74062-2533	74062-2534	74062-2536	74062-2537
		74062-2538	74062-2539	74062-2541	74062-2542	74062-2543	74062-2544
		74062-2546	74062-2547	74062-2548	74062-2549	74062-2551	74062-2552
		74062-2553	74062-2554	74062-2556	74062-2557	74062-2558	74062-2559
		74062-2561	74062-2562	74062-2563	74062-2564	74062-2566	74062-2567
		74062-2568	74062-2569	74062-2571	74062-2572	74062-2573	74062-2574
		74062-2576	74062-2577	74062-2578	74062-2579	74062-2581	74062-2582
		74062-2583	74062-2584	74062-2586	74062-2587	74062-2588	74062-2589
		74062-2601	74062-2602	74062-2603	74062-2604	74062-2606	74062-2607
		74062-2608	74062-2609	74062-2611	74062-2612	74062-2613	74062-2614
		74062-2616	74062-2617	74062-2618	74062-2619	74062-2621	74062-2622
		74062-2623	74062-2624	74062-2626	74062-2627	74062-2628	74062-2629
		74062-2631	74062-2632	74062-2633	74062-2634	74062-2636	74062-2637
		74062-2638	74062-2639	74062-2641	74062-2642	74062-2643	74062-2644

74062 Series Number							
Guide Style	Columns	Assembly Order Number					
Shield End	8	74062-2646	74062-2647	74062-2648	74062-2649	74062-2651	74062-2652
		74062-2653	74062-2654	74062-2656	74062-2657	74062-2658	74062-2659
		74062-2661	74062-2662	74062-2663	74062-2664	74062-2666	74062-2667
		74062-2668	74062-2669	74062-2671	74062-2672	74062-2673	74062-2674
		74062-2676	74062-2677	74062-2678	74062-2679	74062-2681	74062-2682
		74062-2683	74062-2684	74062-2686	74062-2687	74062-2688	74062-2689
		74062-8501	74062-8502	74062-8503	74062-8504	74062-8506	74062-8507
		74062-8508	74062-8509	74062-8511	74062-8512	74062-8513	74062-8514
		74062-8516	74062-8517	74062-8518	74062-8519	74062-8521	74062-8522
		74062-8523	74062-8524	74062-8526	74062-8527	74062-8528	74062-8529
		74062-8531	74062-8532	74062-8533	74062-8534	74062-8536	74062-8537
		74062-8538	74062-8539	74062-8541	74062-8542	74062-8543	74062-8544
		74062-8546	74062-8547	74062-8548	74062-8549	74062-8551	74062-8552
		74062-8553	74062-8554	74062-8556	74062-8557	74062-8558	74062-8559
		74062-8561	74062-8562	74062-8563	74062-8564	74062-8566	74062-8567
		74062-8568	74062-8569	74062-8571	74062-8572	74062-8573	74062-8574
		74062-8576	74062-8577	74062-8578	74062-8579	74062-8581	74062-8582
		74062-8583	74062-8584	74062-8586	74062-8587	74062-8588	74062-8589
		74062-8601	74062-8602	74062-8603	74062-8604	74062-8606	74062-8607
		74062-8608	74062-8609	74062-8611	74062-8612	74062-8613	74062-8614
		74062-8616	74062-8617	74062-8618	74062-8619	74062-8621	74062-8622
		74062-8623	74062-8624	74062-8626	74062-8627	74062-8628	74062-8629
		74062-8631	74062-8632	74062-8633	74062-8634	74062-8636	74062-8637
		74062-8638	74062-8639	74062-8641	74062-8642	74062-8643	74062-8644
		74062-8646	74062-8647	74062-8648	74062-8649	74062-8651	74062-8652
		74062-8653	74062-8654	74062-8656	74062-8657	74062-8658	74062-8659
		74062-8661	74062-8662	74062-8663	74062-8664	74062-8666	74062-8667
		74062-8668	74062-8669	74062-8671	74062-8672	74062-8673	74062-8674
		74062-8676	74062-8677	74062-8678	74062-8679	74062-8681	74062-8682
		74062-8683	74062-8684	74062-8686	74062-8687	74062-8688	74062-8689

74075 Series Number							
Guide Style	Columns	Assembly Order Number					
Custom	8	74075-0001	74075-0002	74075-0003	74075-0004	74075-0006	74075-0007
		74075-0012	74075-0013	74075-0014	74075-0016	74075-0017	74075-0018
		74075-0022	74075-0023	74075-0024	74075-0026	74075-0028	74075-0029
		74075-0030	74075-0031	74075-0036	74075-0037	74075-0038	74075-0043
		74075-0054	74075-0055	74075-0072	74075-0073	74075-0074	74075-0077
		74075-0078	74075-0081	74075-0099	74075-0100	74075-0111	74075-0112
		74075-0114	74075-0115	74075-0116	74075-0121	74075-0123	74075-0126
		74075-0127	74075-0128	74075-0129	74075-0145	74075-0146	74075-0147
		74075-0148	74075-0149	74075-0150	74075-0151	74075-0153	74075-0158
		74075-0160	74075-0161	74075-0168	74075-0169	74075-0174	74075-0180
		74075-0186	74075-0187	74075-0188	74075-0189	74075-0193	74075-0194
		74075-0195	74075-0198	74075-0203	74075-0206	74075-0207	74075-0208
		74075-0210	74075-0211	74075-0221	74075-0222	74075-0223	74075-0224
		74075-0226	74075-0228	74075-0229	74075-0230	74075-0231	74075-0232
		74075-0233	74075-0234	74075-0237	74075-0238	74075-0239	74075-0241
		74075-0243	74075-0246	74075-0252	74075-0253	74075-0254	74075-0255
		74075-0258	74075-0259	74075-0261	74075-0263	74075-0265	74075-0266
		74075-0267	74075-0268	74075-0269	74075-0270	74075-0271	74075-0272
		74075-0273	74075-0275	74075-0279	74075-0281	74075-0284	74075-0285
		74075-0286	74075-0289	74075-0291	74075-0292	74075-0296	74075-0299

74075 Series Number							
Guide Style	Columns	Assembly Order Number					
Custom	8	74075-0300	74075-0301	74075-0302	74075-0303	74075-0304	74075-0310
		74075-0311	74075-0312	74075-0313	74075-0314	74075-0315	74075-0317
		74075-0321	74075-0322	74075-9903	74075-9904	74075-9908	74075-9909
		74075-9910	74075-9918	74075-9970	74075-9984	74075-9986	74075-9994
		74075-9996	74075-9998				

74078 Series Number							
Guide Style	Columns	Assembly Order Number					
Custom	8	74078-0002	74078-0006	74078-0008	74078-0010	74078-0011	74078-0012
		74078-0013	74078-0014	74078-0015			

74457 Series Number							
Guide Style	Columns	Assembly Order Number					
Signal End	8	74457-2501	74457-2502	74457-2503	74457-2504	74457-2506	74457-2507
		74457-2508	74457-2509				

74458 Series Number							
Guide Style	Columns	Assembly Order Number					
Shield End	8	74458-2501	74458-2502	74458-2503	74458-2504	74458-2506	74458-2507
		74458-2508	74458-2509				

75197 Series Number							
Guide Style	Columns	Assembly Order Number					
Open End	8	75197-2501	75197-2502	75197-2503	75197-2504	75197-2506	75197-2507
		75197-2508	75197-2509				
		75197-8501	75197-8502	75197-8503	75197-8504	75197-8506	75197-8507
		75197-8508	75197-8509				

75198 Series Number							
Guide Style	Columns	Assembly Order Number					
Left	8	75198-2501	75198-2502	75198-2503	75198-2504	75198-2511	75198-2512
		75198-2513	75198-2514	75198-2521	75198-2522	75198-2523	75198-2524
		75198-2531	75198-2532	75198-2533	75198-2534	75198-2541	75198-2542
		75198-2543	75198-2544	75198-2551	75198-2552	75198-2553	75198-2554
Left	8	75198-2561	75198-2562	75198-2563	75198-2564	75198-2571	75198-2572
		75198-2573	75198-2574	75198-2581	75198-2582	75198-2583	75198-2584
		75198-8501	75198-8502	75198-8503	75198-8504	75198-8511	75198-8512
		75198-8513	75198-8514	75198-8521	75198-8522	75198-8523	75198-8524
		75198-8531	75198-8532	75198-8533	75198-8534	75198-8541	75198-8542
		75198-8543	75198-8544	75198-8551	75198-8552	75198-8553	75198-8554
		75198-8561	75198-8562	75198-8563	75198-8564	75198-8571	75198-8572
75198-8573	75198-8574	75198-8581	75198-8582	75198-8583	75198-8584		

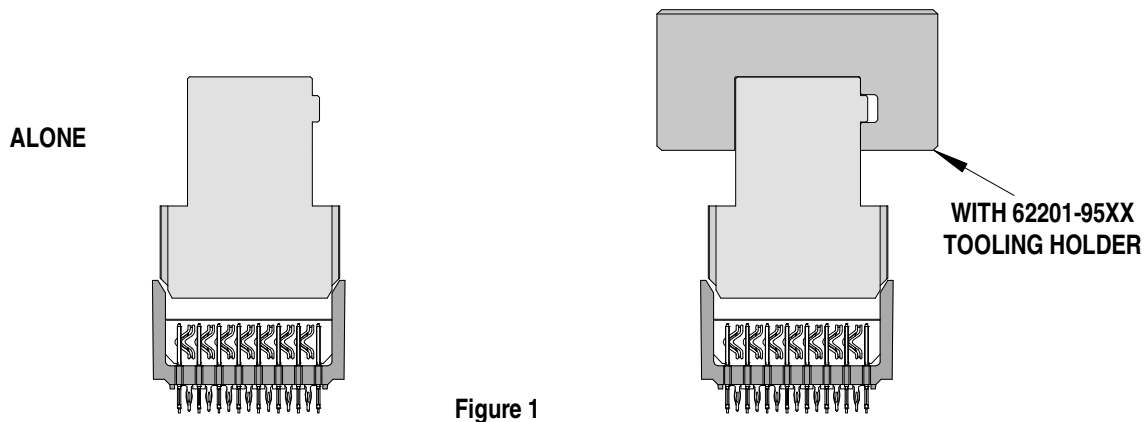
75199 Series Number							
Guide Style	Columns	Assembly Order Number					
Left	8	75199-2501	75199-2502	75199-2503	75199-2504	75199-2511	75199-2512
		75199-2513	75199-2514	75199-2521	75199-2522	75199-2523	75199-2524
		75199-2531	75199-2532	75199-2533	75199-2534	75199-2541	75199-2542
		75199-2543	75199-2544	75199-2551	75199-2552	75199-2553	75199-2554
		75199-2561	75199-2562	75199-2563	75199-2564	75199-2571	75199-2572
		75199-2573	75199-2574	75199-2581	75199-2582	75199-2583	75199-2584
		75199-8501	75199-8502	75199-8503	75199-8504	75199-8511	75199-8512

75199 Series Number							
Guide Style	Columns	Assembly Order Number					
		75199-8513	75199-8514	75199-8521	75199-8522	75199-8523	75199-8524
		75199-8531	75199-8532	75199-8533	75199-8534	75199-8541	75199-8542
		75199-8543	75199-8544	75199-8551	75199-8552	75199-8553	75199-8554
		75199-8561	75199-8562	75199-8563	75199-8564	75199-8571	75199-8572
		75199-8573	75199-8574	75199-8581	75199-8582	75199-8583	75199-8584

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### Tool Setup

Depending on the number of connectors to be installed and/or the press used, this tool can be used alone or with a group of press-in tools, mounted in a 62201-95XX tooling holder (ordered separately). See Figure 1.



## Tool Installation

The 62201-95XX tooling holder is available in a variety of lengths to accommodate multiple press-in tools.

Tooling Holder Part Number	Rail Overall Length
62201-9501	24mm (0.94 in)
62201-9502	72mm (2.83 in)
62201-9503	156mm (6.14 in)
62201-9504	216mm (8.50 in)
62201-9509	254mm (10.0 in)
62201-9511	305mm (12.0 in)

Reference: The 62202-0210 Press-In Tool is 49.9mm (1.97 in.) long by 25.0mm (.984 in.) high.

## Printed Circuit Board (PCB) Support

The \*VHDM® and HSD connectors requires a large amount of force per pin to press into the PCB. To prevent excessive PCB flexure and/or damage to the PCB, a support plate is strongly recommended directly beneath the connector hole pattern.

Due to the custom nature of every application, Molex does not offer any PCB support plate. The customer must furnish their own support plate.

When creating the PCB support plate, remember to allow clearance for the connector pins as they pass through the PCB thickness.

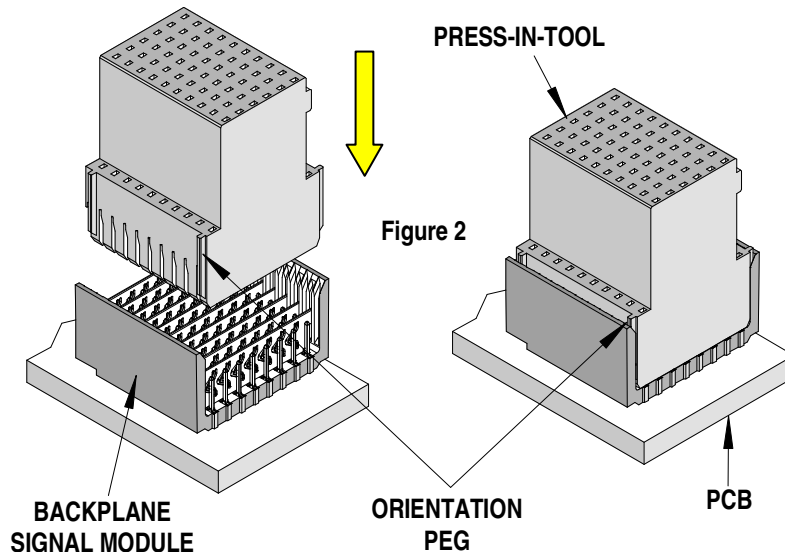
## Press Equipment Recommendations

Many types of presses can be used to install \*VHDM® connectors, but to assure consistent connector installation Molex recommends the following press criteria:

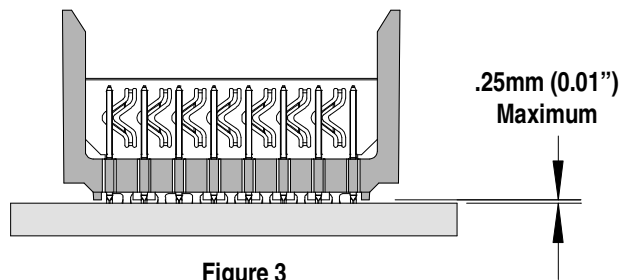
1. The capability to detect force variations as low as 4.5kg (10 lb) during the press-in cycle; excessive force measurements should stop the press-in cycle.
2. The rate of pressing can be regulated as low as 0.13mm (0.005 in) per second.
3. Press stroke control to within 0.25mm (0.010 in).
4. Total press stroke must be at least 19mm (0.75 in).
5. For statistical purposes, automatic collection of force and distance data.

## Tool Operation

1. Carefully insert, by hand, the backplane signal module(s) into the PCB hole pattern. Make sure the connector(s) are oriented properly.
2. Insert the press-in-tool into the backplane signal module assembly with the orientation peg on the tool entering the groove in the connector housing. Make sure all the pins and shields fit into the proper slots. See Figure 2.



- Using the application tool and an appropriate press, seat the header assembly until there is less than 0.25mm (0.01 in) clearance between the bottom of the plastic housing and the surface of the PCB. See Figure 3.



**CAUTION:** To prevent injury, never operate any press without the guards in place. Refer to the press manufacturer's instruction manual.

**CAUTION:** Molex application tooling specifications are valid only when used with Molex connectors and tooling.

### Contact Information

For more information on Molex application tooling please contact Molex at 1-800-786-6539.

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