



Application Note

Telecommunication Switch- Plated and Decoratively Painted Faceplates



Problem

Telecommunication switch manufacturers utilize injection molded faceplates. The faceplates attach to the PC Boards that are slid into the switch rack. Since the faceplates are plastic, they are transparent to EMI and require shielding. The faceplates require decorative paint to color match with the switch as well as the assembly of lock latches.

Cybershield Solution

Cybershield worked with several switch manufacturers to design and produce the EMI shielded faceplates made from Polycarbonate or PC/ABS plastic resins. The customers required the shielding effectiveness offered by All-Over electroless plating with 10 micro-inches (0.25 μ) Nickel over 40 micro-inches (1.0 μ) Copper (See Exhibit 1 for Shielding Effectiveness). The electroless plating also met the adhesion standard, ASTM 3359.

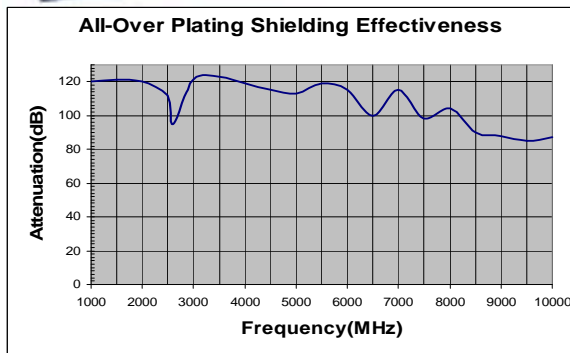


Exhibit 1- Shielding Effectiveness

Many other plastic resins are compatible with Cybershield plating processes.

Plateable Resins – Contact Cybershield for details

ABS, PC/ABS, Polycarbonate, Polyetherimide (Ultem), Syndiotactic Polystyrene (SPS), Noryl, Polypropylene, Polyphthalamide (Nylon), Polyethersulfone (PES), Polyetheretherketone (PEEK), Epoxy, Urethane

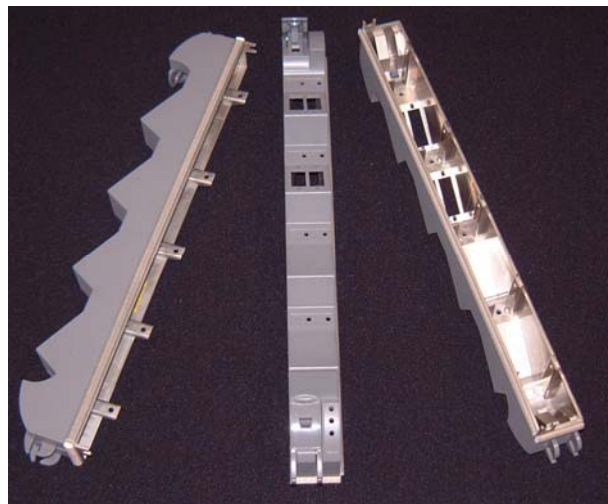


Exhibit 2 – Finished Faceplate Assembly

For more information about this application, Cybershield capabilities and/or to review your application requirements for metallized plastic, contact Cybershield

Cybershield

308 Ellen Trout Drive

Lufkin, TX 75904

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Email: sales@cybershieldinc.com

- Fabricate a full range of EMI shielding solutions – Electroless Plating and Conductive Paint
- Electroplating Copper, Nickel, Trivalent Chrome, including decorative plating on plastics and metal
- Offer engineering design assistance – plastic resin selection, metal coating specification and mechanical design recommendations
- Serve applications in volumes from 25 units per month to millions of units per month
- Provide extensive mechanical assembly services to its customers
- Manage entire supply chain, including plastic injection molding to provide customers with turnkey solutions, designed and manufactured to strict OEM requirements

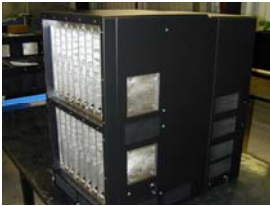
EMI Shielding, ESD and Electroplated Coatings

All-over & Selective Coverage
Electroless Plating Copper, Nickel, Tin, Gold
Electroplating Copper, Nickel, Trivalent Chrome
Conductive Paint

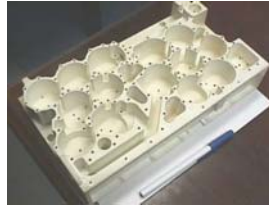
Assembly Services

Dispensed Gaskets (Conductive or Environmental)
Insert Installation (Ultrasonic or Heat Staking)
Decorative Paint
Mechanical Assembly

Other Cybershield Plastic Metallization Systems



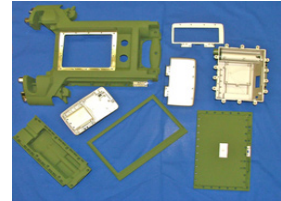
Plated Plastic
Router Chassis



Plated Plastic RF
Filter Housing



Plated Plastic
Shielded Connectors



Military Electronics
EMI Shielding