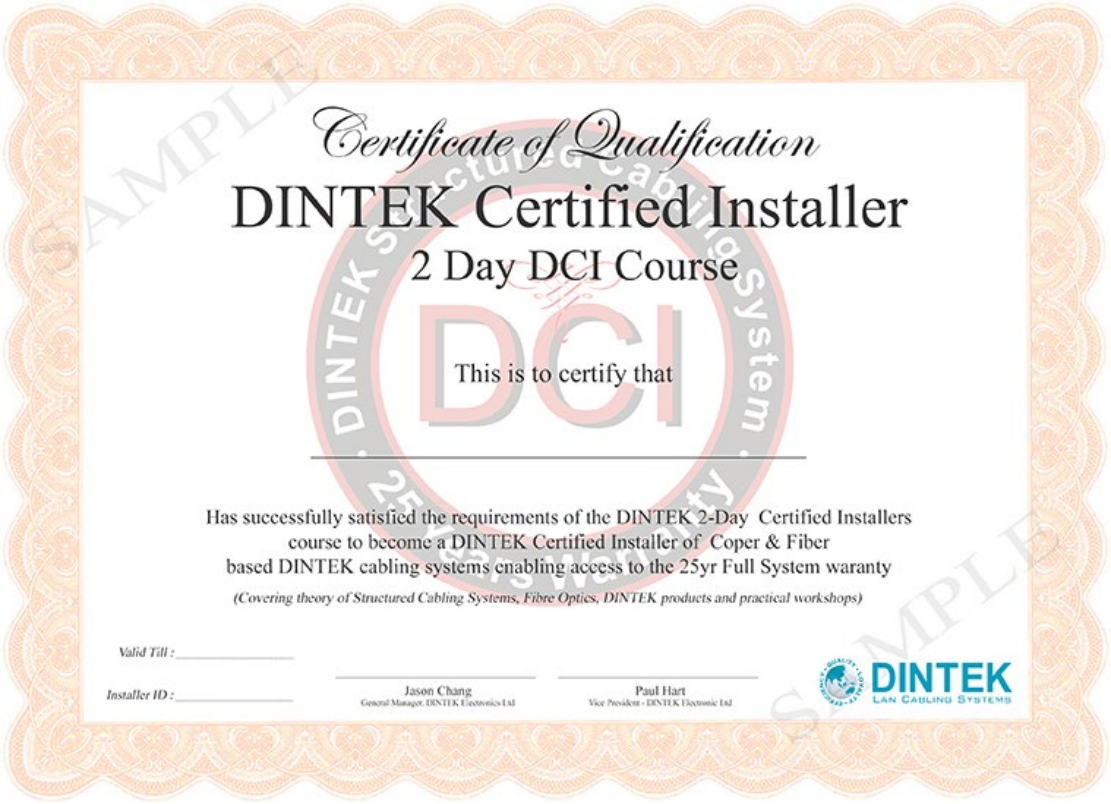


# DINTEK DCI

# DAY 1

## COPPER CABLING 1

# Session One

**9.00 AM – 12.15 PM**

## Twisted Pair Basics & SCS Architectures

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### 1.1 Twisted Pair (TP) & Terminations Theory

1.1.1 - TP Development and Design
1.1.2 - TP Transmission Issues & Remedies
1.1.3 - Color Coding & RJ45 Pin-out Positions

### 1.2 Standards

1.2.1 - Standards Organizations
1.2.2 - Generic Cabling Standards
1.2.3 - CPR Classification
1.2.4 - Cabling Types (and x/xTP Naming)
1.2.5 - Specifying What Cables to Use & Where

### 1.3 Cabling Systems & Generic Architectures

1.3.1 - Network Topologies
1.3.2 - Generic Cabling Architecture - ANSI/TIA 568.0-D
1.3.3 - Backbone Cabling Architecture

### 1.4 Commercial Structured Cabling Fundamentals

1.4.1 - Structured Cabling Architecture ANSI/TIA 568.1-D
1.4.2 - Applying the Standards to SCS Backbones
1.4.3 - Horizontal Structured Cabling Subsystems ANSI/TIA 568.1-D
1.4.4 - Applying the Standards to The Horizontal System

### 1.5 Workshop 1 – DINTEK ezi-PLUG™ Cat.6 Pass-Through RJ45

1.5.1 - Terminating a Patch Cord using DINTEK RJ45 Pass-Through Plugs

### 1.6 Workshop 1B – DINTEK CAT.6A Field Terminated Plugs

1.6.1 - Terminating Cat.6A Field Terminated RJ45 Industrial Plug

# Session Two

**1.00 PM – 5.00 PM**

## Installation, High Performance Testing & Certification

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### 2.1 Cabling Installation

2.1.1 - Pre-wire: Materials and Installation Guidelines
2.1.2 - Main Cabling Installation Guidelines
2.1.3 - PoE Installation Considerations

### 2.2 Cabling Termination

2.2.1 - Termination: Techniques & Best Practices

### 2.3 Testing for Cable Certification

2.3.1 – Wire-map Testing & Cable Verification
2.3.2 - Certification Testing Parameters
2.3.3 - Terminology and Definition of Parameters
2.3.4 - Test Equipment (Continuity & Dynamic Testers)
2.3.5 - Testing Configuration Types
2.3.6 - Interpretation of Test Results
2.3.7 - Troubleshooting Specific Faults

### 2.4 25yr Warranty Program

2.4.1 - Definition of the 25yr Warranty
2.4.2 - Knowing Terminology and Definition of Parameters
2.4.3 - Project Registration Requirements

### 2.5 Workshop 4A/B - CAT.6A Toolless Jack & F-Jack Termination

2.5.1 – Workshop 4A - Termination of a Shielded Toolless CAT.6A Jack
2.5.2 – Workshop 4B - Termination of a CAT.6A Shielded F-Jack
2.5.1 – Workshop 4C - Testing Workshop Connections

### 2.6 End of Day One Test

2.6.1 – 25 Question Test Covering Day One

# DINTEK DCI

# DAY 2

## FIBER OPTICS

# Session Three

**9.00 AM – 12.00 PM**

## Fiber Optical Theory

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### 3.1 Fiber Optics Explained

3.1.1 - What is Fiber Optics
3.1.2 - Construction & Types of Optical Fiber
3.1.3 - How Fiber Optics Works
3.1.4 - The Light Spectrum
3.1.5 - Fiber Optic Transmission

### 3.2 Fiber Transmission Factors

3.2.1 - Fiber Transmission Factors
3.2.2 - Absorption and Scattering
3.2.3 - Fiber Loss & Loss Budgets
3.2.4 – Workshop 5A – Optical Loss Calculation Exercise

### 3.3 Fiber Cables and Construction

3.3.1 - Choosing a Fiber Type
3.3.2 - Different Cable Constructions
3.3.3 - Fiber Color Coding

### 3.4 Fiber Connectors, Adaptors & Enclosures

3.4.1 - Fiber Connectors, Adaptors & Enclosures

### 3.5 ezi-FIBER™ Mechanical Terminating

3.5.1 - Introduction to the ezi-FIBER™ Range

### 3.6 Workshop 5 – Fiber Preparation & Mechanical Fiber Terminating

3.6.1 – Workshop 5B - Fiber preparation and Stripping
3.6.2 – Workshop 5C - Terminating an ezi-CONNECTOR & ezi-SPLICE.

# Session Four

**1.00 PM – 5.00 PM**

## Fiber Optic Installation & Testing

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### 4.1 Installing Fiber Cabling

4.1.1 - Fiber Cable Installation Guidelines & Practices
4.1.2 - Pulling Fiber Cables
4.1.3 - Bending Radius/Hauling Tension
4.1.4 - Aerial & Buried Fiber installation

### 4.2 Fiber Loss Testing

4.2.1 - Types Of Optical Tests
4.2.2 - Single & Double Ended Tests
4.2.3 - Types of Optical Loss Tests
4.2.4 - Testing Methods

### 4.3 OTDR Testing

4.3.1 - What is an OTDR?
4.3.2 - How does an OTDR test fibers
4.3.3 - The OTDR Trace and How to Read the Results
4.3.4 - Overcoming the Dead Zone
4.3.5 - Analyzing The Trace

### 4.4 Fusion Splicing

4.4.1 - Introduction to Fusion Splicers and Splicing technique

### 4.5 Workshop 6A – Fusion Splicing

4.5.1 – Workshop 6A Carrying Out a Fusion Splice

### 4.6 Workshop 6B - Optical Loss Testing

4.6.1 - Carrying out Optical Loss Testing on the workshop terminations.

### 4.7 End of Day Two Course Test

4.7.1 – End of Day Two - Course Test